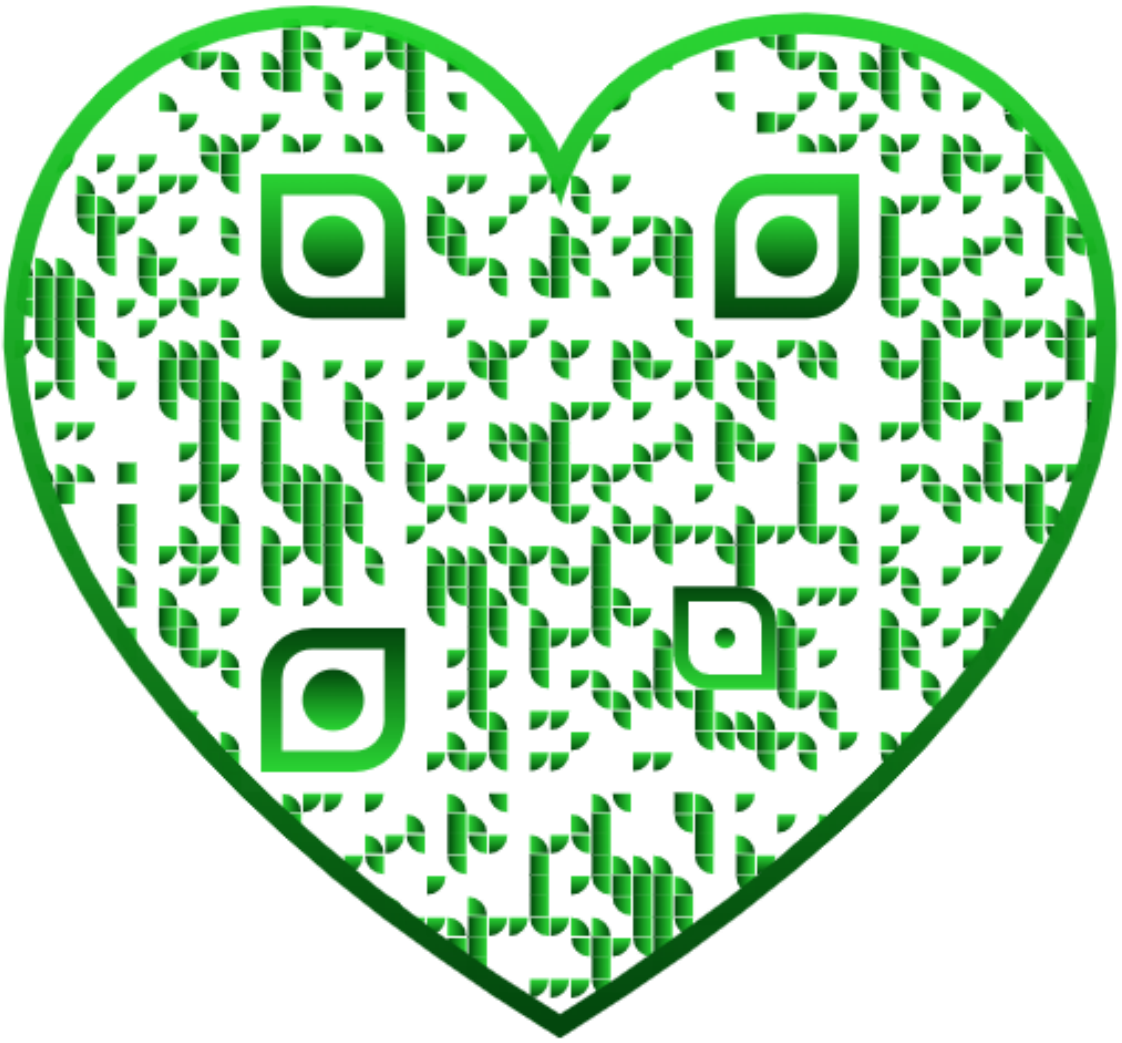
THE NABATAEANS

BUILDERS OF PETRA

DAN GIBSON



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Introduction

Few people have ever heard of the Nabataean Empire. Yet, this small desert kingdom stood against the Greeks, and almost brought the Roman Empire to its knees. Their secret was not so much a powerful army, but rather, economics. Using their monopoly on the supply of frankincense to Europe's temples, the Nabataeans built an empire of wealth and opulence never before seen in the deserts of Arabia. Their secret to survival lay, not in their powerful military, but in their use of economics, secrecy, deception, and diplomacy.

Today the spectacular ruins left in the ancient city of Petra, the most famous city in the Nabataean Kingdom, awe tourists and historians alike. Across the deserts of Arabia, other Nabataean cities lie beneath the dust and sands of time. For thousands of years the Nabataean Kingdom has been lost and forgotten. Today, however, thanks to the renewed efforts of archeologists and historians, he extent of the kingdom is finally becoming known.

For over twenty years, I have made repeated visits to many Nabataean sites, seeking to understand these ancient peoples and their culture. I have visited the frankincense fields of Yemen, traced their caravan routes through the Arabian deserts, visited the caves and temples of Petra, and followed the frankincense route on to the ancient cities of Syria and Egypt. I have also studied and lived among the Bedouin tribes of the Arabian Peninsula, endeavoring to understand their cultural and social makeup. Admittedly, much of my interest has been more sociological than archeological, and this has influenced my writing considerably.

My quest has always been focused on discovering what motivated the Nabataeans to try to conquer the desert. Other Arabian tribes simply chose to live within the limitations that the desert put upon them. So, what was it that motivated these people to leave their pastoral, nomadic lifestyle and build cities and monuments of staggering proportion? Lastly, I have sought to discover, why there are so many anomalies between the historical records and the interpretations that modern day archeologists take from the scant Nabataean artifacts we have today.

This book came about through an agreement between the publishing house, CanBooks, and the Ministry of Tourism in the Hashemite Kingdom of Jordan in the year 2000. At that time most of the books available to tourists were mostly filled with photographs with little information about the Nabataean people themselves. This book was designed to combine the reports of historians and archeologists, making the information simple and available for the man on the street. Most of what I write is taken from the pages of history. The rest is based on my opinions of Nabataean life, taken from my observations of their cities, inscriptions, and graffiti. In this book I have endeavored to mention some of the more significant historical sources whenever possible. However, for those who would like a more scholarly approach, CanBooks has recently published my book on the geography of the Arabian Peninsula under the title: *Qur'anic Geography*. I also hope to publish a more academic book on the Nabataeans in the future.

In this book the term Nabataean applies to an ethnic group or tribe of Arabs, rather than a specific kingdom (which lasted for only a few centuries.) Before this the Nabataeans existed without a formal empire or even an area controlled by them. Eventually an area did become associated with their name, although the borders would

continually change over the centuries. From around 200 BC to 106 AD kings appeared (or at least rulers or leading sheiks) sometimes accompanied by their spouses. In 106 AD the Romans occupied much of the formal Nabataean area, but people continued to call themselves Nabataeans long afterwards.

This is testified to by a Greek inscription found in Namara, written during Roman times which refers to *Mushammar… the Nabataean*. There is also a Safiatic inscription mentioning *hnbty the Nabataean*. In Palmyra there is an inscription from 132 AD in which a cavalryman describes himself as a Nabataean from the Rawā? tribe. (Knauf 1989, 56-57) As late as 900 AD, Abu Bakr Ahmad ibn Ali ibn Qais ibn Wahsiyah describes himself as a Nabataean in his books *Al-Filiāheh an-Nabātiyah* (904 AD) and *As-Sumum wat-Tiyaqat*.

Traditionally scholars have used two indicators to identify the Nabataeans. The first is Nabataean fine-ware pottery, and the second is the Nabataean script. It is interesting to note that Nabataean pottery production continued until the third century AD (Dijkstra 1995, 39) and that the script survived in Egypt, across Arabia and even into Europe, wherever Nabataean merchants traveled. Post-Nabataean script eventually evolved into the Arabic language of the seventh century. (Healy, 2001, 10)

Those who want to study the formal Nabataean Kingdom must restrict themselves to the period when the Nabataeans controlled specific areas under that name. This name is testified to by Josephus Josephus, the ancient Jewish historian, who identified the Nabataeans with Ishmael's eldest son (Genesis 25:13). He claimed that the Nabataeans of his time lived through the whole country extending from the Euphrates to the Red Sea. He refers to this area as Nabatene, or the area in which the Nabataeans ranged. Josephus goes on to say that it was the Nabataeans who conferred their names on the Arabian nations. (Jewish Antiquities I.22, 1) During this time it appears that their capital was located at Petra.

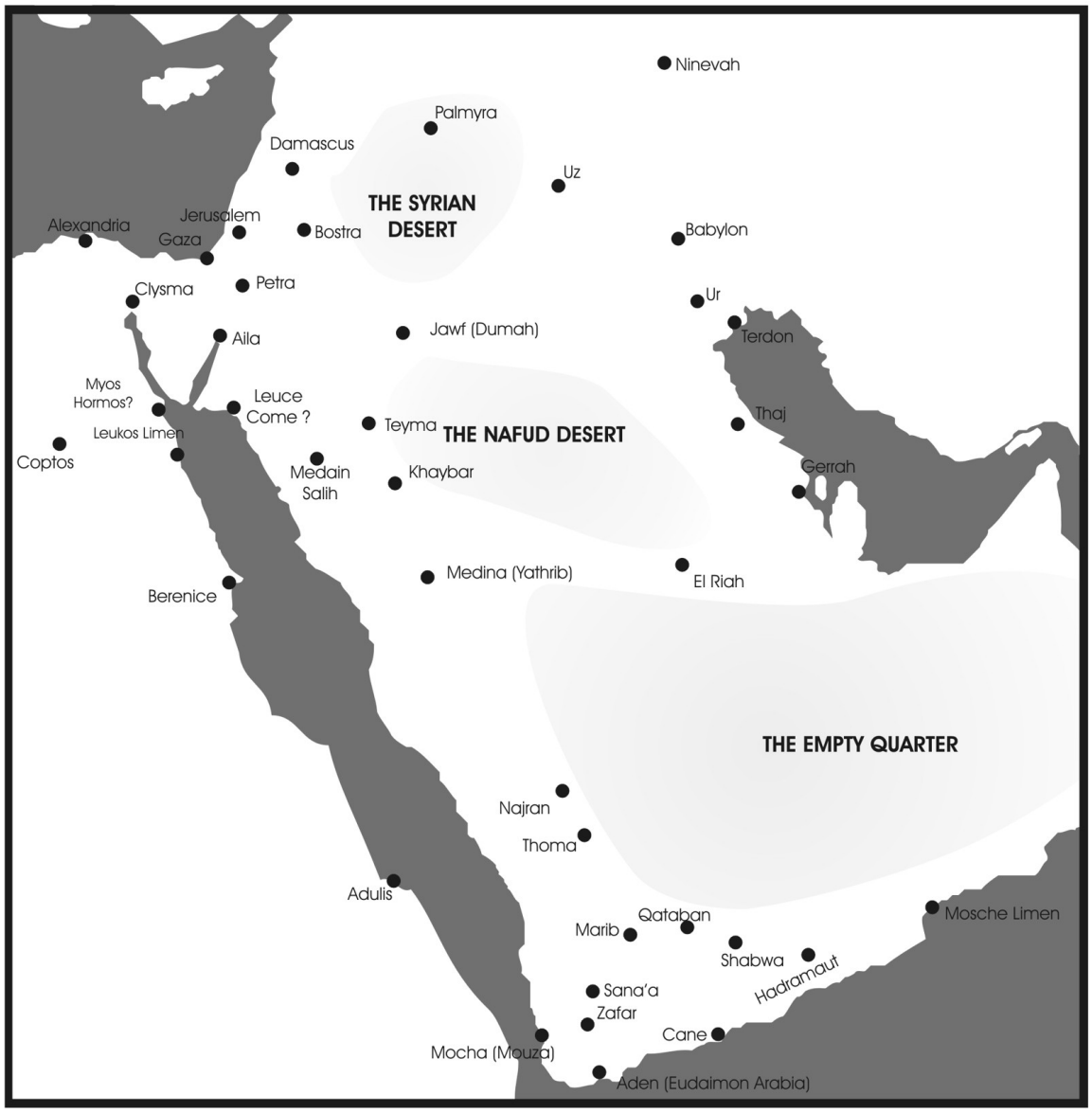
Despite Josephus' claim of the origins of the Nabataeans, today it is unpopular to associate the Nabataeans with the *Nebayot*, the *na-ba-a-a-ti* or the *nbyt* of Mesopotamia and Taymanite origins. The origin of the Nabataeans are now more associated with the *šlmw* or *šalamu* (Hegra inscriptions H 1:4, 8:9, 19:3; Stephanus of Byzantieium *Ethnika*, 550: 12-13, Healey 2001, Pp 40). Despite this, I believe that both the earlier association with Mesopotamia (and Tayma) as well as the association with the *šalamu* are tenantable. It is not a case of either/or but rather requires identifying this elusive group of Arab merchants who claimed no homeland as their own, but rather situated themselves in or near the great cities of the ancient Near East.

It is my opinion that the Nabataeans have been greatly misunderstood as a people. Powerful sociological factors drove these people to leave their pastoral life to become masters of the desert, only to move on years later and become masters of the sea, enabling them to travel where other civilizations could not. These factors motivated them to develop water-management systems that allowed them to thrive where others died of thirst. They were similarly motivated when they left their nomadic lifestyle and began to erect cities and monuments to match any civilization up to their time, including the Romans.

On top of this, they were masters at profiteering, deception, and diplomacy. This allowed them to survive for hundreds of years with only a token army, while draining the coffers of the Greek and Roman Empires. They were truly a unique civilization, and this

is their story.

Dan Gibson



Chapter One

Who were the Nabataeans?

At its peak, the Nabataean Empire seems to have stretched from modern-day Yemen to Damascus and from western Iraq into the Sinai Desert… at least, according to some historians. No one is really sure how large their empire really was. That is how illusive and mysterious the Nabataeans were. While their caravans traveled widely, it is hard to be certain of the borders of their kingdom, or the extent of their travel.

Written records of the Nabataean kingdom are sparse as there are only a few surviving documents and scattered inscriptions and graffiti. This also is strange, as the thousands of graffiti carved onto rocks and canyon walls clearly demonstrate that almost every Nabataean could read and write; even the shepherds. So, why not write their history? The Egyptians wrote on the walls of their temples, the Jews wrote on scrolls, and the Babylonians wrote on clay tablets. Kings and rulers over the centuries wrote down their triumphs and exploits. The Nabataeans, however, seem to have refused to write. Their temple walls are bare; their cities contain no libraries, and to date, archeologists have found only a few scraps of writing. Why? What secrets did the Nabataeans have that they wished to withhold?

Even the ancient historians of Greece and Rome, who wished to write about the Nabataeans, recorded mostly the amazing tales that the Nabataeans invented to hide their history, their trade routes, and the sources of their goods.

And, that's not all. There are other puzzling questions. History tells us that the Nabataeans were nomads, dwelling in tents in the desert. Yet, within a few short years they built spectacular and awe-inspiring monuments. The magnificent city of Petra is so impressive, that, even today, tourists stare in awe at the great ruins. Yet, this impressive city was hidden away in a cleft in the rock with access through a narrow crack in a mountain. The crack is over 1200 meters long and 3 to 6 meters wide, flanked by 100-meter high canyon walls. Why hide a city? Moreover, why was it built in such a hurry, only a few short years before Christ walked on this earth? Thousands of monuments and tombs were erected in this hidden city, and then suddenly, the Nabataeans handed their empire over to the Romans soldiers, and seemed to fade from the scene.

Who were these Nabataeans who suddenly appeared in history? What was it that allowed these men from the desert to profit so richly from the frankincense and spice trade? Why did they build such tremendous monuments and then disappear? These are only some of the questions that archeologists have been asking as they have dug through the sands of time. The answers they are finding are full of surprises. If you like history, you will truly enjoy the unique story of the Nabataeans.

A Starting Place

Nabataean history goes back thousands of years, but since it is so illusive, most historians start in 586 BC, when the Babylonians under Nebuchadnezzar's leadership captured Jerusalem and the Jewish people were hauled off as captives to distant lands. During this time, Jerusalem lay deserted and destroyed. The emptying of Jewish lands provided an opportunity for the Edomites, the enemies of Judah from the south. With no one to stop them, the Edomites began packing up and moving from the barren hills of the

southland into the rich abandoned lands of Judah to their north.

About this time, we begin to find records of Nabataeans living in Edomite territory. Did they immigrate into the area when the Edomites left or had they been present for hundreds of years, living quietly alongside of the Edomites?

Most historians believe that the Nabataeans must have migrated into Edomite territory when the Edomites started their move north. However, I now believe that the Nabataeans were living in Edomite territory long before this, and it was only when the Edomites left that the Nabataeans gained enough prominence to obtain a homeland that they could call their own. I also believe that Nabataeans lived in other places in the Middle East at the same time, setting up their small tent communities on the outskirts of the ancient cities of Arabia.

Modern parallels to this can be found among the Turkomen and the Gypsies of the Middle East today. These groups live in most of the countries of the Middle East, yet they have no territory that they call their own. They set up their tents outside of major cities, yet they have no cities of their own. The Turkomen buy goods from their communities in one country and sell them in other countries. Yet they have no trade agreements with any of the governments involved. They are almost invisible in today's modern world, because they move in the shadows of established civilization. Yet, they have their own culture, language, and history. So it is, that the Nabataeans keep popping up in the very ancient historical records, but historians cannot pin them down to a particular location that can be called Nabataea. In their early history they quietly carried goods from one place to another, selling them at local markets, but never establishing diplomatic ties with the great historical empires. They lived on the margins of society, and people saw them as such and left them alone. But, all the while, they grew richer and richer as they traded in more and more types of goods, until finally history could ignore them no longer.

Early Origins

Historians have uncovered a number of places in history where the Nabataeans seem to be mentioned. But, unfortunately, no one is sure that the Nabataeans who built Petra are one and the same with these ancient peoples.

First, Josephus, the ancient Jewish historian, identified the Nabataeans with Ishmael's eldest son (Genesis 25:13). He claimed that the Nabataeans lived through the whole country extending from the Euphrates to the Red Sea. He refers to this area as Nabatene, or the area in which the Nabataeans ranged. Josephus goes on to say that it was the Nabataeans who conferred their names on the Arabian nations. (Jewish Antiquities I.22, 1) Josephus lived and wrote during the time that the Nabataeans were in existence, and supposedly, he obtained his information directly from the Nabataeans themselves.

David Graf, in his book *Rome and the Arabian Frontier: from the Nabataeans to the Saracens*, believes that the Nabataeans were originally from Mesopotamia (ancient Iraq). Assyrian records tell of King Ashurbanipal (668-663 BC) fighting with the *Nabaiateans of Arabia*. Are these the same people? Some years earlier, in 703 BC, a group of Chaldaeans and neighboring tribes rebelled against Sennacherib, the Assyrian ruler. The ancient records of Tiglathpilezeer III list, among the rebels, the *Hagaranu* (perhaps the descendants of Hagar, the mother of Ishmael), the *Nabatu* (perhaps the Nabataeans, descendants of Nebayoth, the son of Ishmael) and the tribe of Qedar. The Qedarites are mentioned in Genesis 25:13 as descendants of a son of Ishmael named Qedar. These

tribes fled into the desert, and could not be conquered.

Some historians have proposed that the Nabataeans descended from Nabaioth, a sister of Bashemath, one of Esau's three wives. While the Edomites claimed decent from Bashemath the Nabataeans simply referred to themselves as the *Nabatu*, meaning people who draw water.

The Assyrian kingdom eventually broke into two as two brothers began to rule: one, the King of Babylonia, and the other, the King of Assyria. In 652 BC, conflict broke out between these two brothers, and in support of the Babylonian king, the Qedarites invaded western Assyria, were defeated, and fled to Natnu, the leader of the *Nabayat*, for safety (as described in the records of Esarhaddan). Later the Qedarites and the Nabayat attacked the western borders of Assyria but were defeated. After their defeat, Natnu's son, Nuhuru, was declared the leader of the Nabatu.

Arab literature from the much later Islamic period mentions that there were at least two distinct groups of Nabataeans in the Middle East at that time. First, there was a group of Nabataeans from Iraq that were known as *Nabat al-'Irak* (Iraqi Nabataeans). Second, there were the *Nabat al-Sham* or Nabataeans of Damascus. As you will discover later, the Nabataeans controlled Damascus during the time of the Apostle Paul, and perhaps these Nabataeans were descendants of the Nabataeans from Damascus. The distinction between these two groups of Nabataeans is outlined very well in an article in the Encyclopedia of Islam Volume VII, under "*Nabat*."

The existence of several Nabataean groups helps explain the issue, that is sometimes raised of how the Yezidis of Iraq and Turkey could claim connections with Nabataean, and why the Nabataeans are mentioned in Arabic literature as being in Iraq. As we will explain later, Nabataean merchants were present in most Middle Eastern cities, and over the centuries their numbers grew until they were identified as a tribal or ethnic group.

The Zenon papyri from 259 BC, mention that the Nabatu were trading Gerrhean and Minaean frankincense, and transporting them to Gaza and Syria at that time. They transported their goods through the Qedarite centers of Northern Arabia, Jauf, and Tayma. Early Nabataean pottery has also been found in locations on the Persian Gulf, along the coasts of Saudi Arabia, and Bahrain. Tuwayr, Zubayda, Thaj, and Ayn Jawan) There are also ancient references to the Nabatu as living along the western edges of the Arabian Peninsula and in the Sinai. These Nabatu were pirates who sailed the Red Sea plundering trading vessels. Later they established bases in a number of seaports, including the port city of Aila (modern day Aqaba), which is only 120 km from present day Petra.

While most of us think of the Nabataeans as people who transported goods in the desert by camel caravan, it has become increasingly obvious to me that the Nabataeans preferred sea trade, and that they built and maintained a large and impressive merchant marine. More on that later, but right now we are trying to figure out who these people originally were.

Despite all of these occurrences in history, it is still unclear where the Nabataeans came from. Language specialists tell us that Nabataean names were Arab names, that their language was old Arabic, and that they seem to be found from the borders of Iraq to the depths of the Arabian desert. However, it appears that different groups of Nabatu wrote their names in slightly different ways, so that some archeologists today are reluctant to say that they are all the same tribe, or that any one group is the original

Nabataeans. We will examine these phenomena in a later chapter that looks at the Nabataean language.

However, we do know that in 586 BC, as the Edomites began a gradual migration north, the tribes of Arabia also began to move northward. From their port city of Aila (Aqaba), it was only a short move inland for the Nabatu to occupy the gradually emptying land of the Edomites, eventually making it the heart of the Nabataean Empire.

Although the chronology is not yet clear, it appears that some Edomites remained behind. Those that emigrated into Judea became known as Idumaeans. These were some of the people that opposed the Jews during the rebuilding of the temple at Jerusalem under Ezra, and later, the rebuilding of the city walls of Jerusalem under Nehemiah.

However, in the Edomite territory, Nabataean culture quickly replaced the Edomite culture, and the Nabataeans became predominant. When did the Nabataeans actually arrive? This is hard to answer. It seems that the Nabatu had a practice of setting up their tents a few kilometers from major cities. For instance, they did this at Selah, just outside of the Edomite capital of Busheira. They did this at Meda'in Saleh, located 12 kilometers from Dedan (modern Al Ula), the ancient capital of the Thamuds and Lihynaites who lived in Saudi Arabia. They also did this at Jenysos just a few kilometers south of the ancient port city of Gaza. Even after the Nabataeans replaced and absorbed the Edomites, ties between the Idumaeans and the Nabataeans continued, as is illustrated by the family of Herod the Great, whose father was an Idumaean and his mother, a Nabataean.

Building an Empire

During the years that followed Alexander the Great which led up to the forming of the Roman Empire, the Nabataeans managed to become one of the most successful commercial societies in the Middle East. They used their knowledge of sea routes and caravan routes so that they were able to form a solid link between eastern goods and western markets. In an amazing way, they managed to take their caravans through the desert, unaffected by the local tribes who controlled wells and grazing land. How did they do this, and leave no record of their alliances and agreements with these tribes? Perhaps there never were alliances and agreements. I believe that the mysterious Nabataeans developed a method of transporting goods in the desert, without needing to use the local water wells.

Since the local tribes, who were sometimes hostile, controlled these water wells, the Nabataeans developed water collection systems that provided them with water in the desert, at places unknown to others. Using their widespread presence and their system of caravan routes and watering stops, the Nabataeans built an impressive trade empire in the heart of Arabia.

For centuries, the Nabataeans never constructed a single house, or a single temple. When they chose the site of Petra to build their magnificent city, it was a barren canyon, and possibly a place were they buried their dead. It seems that the Edomites never occupied this site. The Edomite capital was Busheira, located south of present day Tafila. Some Nabataeans had originally settled near the Edomite capital city, occupying a flat-topped mountain that was known as Selah. Since this was probably the location of previous massacres (II Kings 14:7), the Edomites would have avoided the place, leaving the Nabataeans alone to their own devices. The Nabataeans initially made a small tent settlement atop this mountain to serve as a refuge and a safe place to keep their women,

children, and goods when they were away buying and selling. This mountain-top refuge, known as Selah, would play an important role in the years that followed.

When the Nabataeans did start building their city, they may have called it Rekem or Rekmu. This city would become so famous that it would be recorded in the records of the Chinese emperors (*The Xiyu chuan ("Chapter on the Western Regions") from Hou Han shu 88 (25-55 AD*, John E. Hill, forthcoming), as well as in the records of the civilizations of Greece, Egypt, Rome, and Byzantium where the city was known by its Roman name, Petra.

So, using the old Edomite territory as their hub, they set up a trading empire that surpassed anything seen before on the face of the earth. Through their system of merchants and trade, they began importing goods from the east and selling them in the west. In the next few centuries, they would import such goods as spices, animals, iron, oil, copper, sugar, medicines, ivory, perfumes, pearls, cotton, ginger, cinnamon, silk, frankincense, myrrh, and gold for the kingdoms of Egypt, Greece, and Rome. On the other hand, they exported to India and China henna, storax, frankincense, asbestos, cloth, silk gauze, silk damask, glass, orpiment, gold, and silver. They also were responsible for the transfer of ideas and inventions between the great eastern and western civilizations.

What is more, it seems that the Nabataeans managed to gain a monopoly on most of these trade goods. As they pushed the prices higher, the Egyptians, Greeks, and Romans began to grumble. Some complained that their empires were being bankrupted; others mobilized their armies to crush the Nabataeans. Every time, however, the Nabataeans managed to escape, usually without battle.

How did they do all this? It is a question that has long puzzled me. The answer has been difficult to work out as the Nabataeans carefully hid all the evidence, fearing that the Greeks, Egyptians, and Romans would discover their secrets and crush their monopolies. And so, the Nabataeans have remained a mysterious civilization, with many of their lies and deceptions lasting until this present day.

Early Culture

Much of what is now known about Nabataean culture comes from the writings of early historians like Strabo, Josephus, Pliny, and Diodorus of Sicily. These historians give us tantalizing glimpses into Nabataean life and culture, as well as a broad outline of their history as seen by outsiders. Few Nabataean manuscripts survive to this day, outside of the Petra Scrolls, which are records of legal dealings during the Byzantine Empire, when the Nabataean Kingdom was already in decline.

Diodorus Siculus, who wrote *Bibliotheca Historica*, writes the following about the Nabataeans whom, like all historians of his day, he simply calls 'Arabs': "*Here it is worth while to recount the institutions of these Arabs, by the practice of which they seem to protect their liberty. Their country has neither rivers nor copious springs from which it is possible for a hostile army to get water. They have a law neither to sow corn nor to plant any fruit-bearing plant, nor to use wine, nor to build a house. This law they hold because they judge that those who possess these things will be easily compelled by powerful men to do what is ordered them because of their enjoyment of these things. Some of them keep camels, others sheep, pasturing them over the desert. Of the Arabian tribes there are not a few who graze the desert and these are much superior to the others in the amenities of life, being in number not much more than 10,000. For not a few of them are wont to*

bring down to the sea frankincense and myrrh and the most costly of spices, receiving them from those who convey them from what is called Arabia Felix. They are conspicuously lovers of freedom, and flee into the desert, using this as a stronghold. They fill cisterns and caves with rainwater, making them flush with the rest of the land, they leave signals there, which are known to themselves, but not understood by anyone else. They water their herds every third day so that they do not constantly need water in waterless regions if they have to flee."

Diodorus' account of the early Nabataeans describes them as nomadic people who have arrived from the desert, and who carry with them their desert ways. Much of his description also fits that of the Rechabites, a nomadic tribe who are mentioned in Jeremiah 35. The Rechabites were a nomadic people who fled to Judah in 586 BC when King Nebuchadnezzar began his conquest of the Middle East. It is interesting to notice that the Rechabites had the exact same prohibitions against agriculture, wine drinking, and living in houses as Diodorus ascribes to the Nabataeans.

Some have speculated that this must have been a typical nomadic mind-set that was common to most of the tribes in Arabia. There are even some parallels to this in the lifestyle of the Bedouin and Gypsies of the Middle East at this time.

Later, once the Nabataeans became a wealthy urban nation, they seem to have dropped these ascetic cultural aspects, while the Rechabites continued to maintain them. We learn this from early church fathers writing about events just before the Jewish Revolt (70 AD), who describe the presence of Rechabite priests in the Middle East.

These ascetic cultural aspects, however, do not necessarily make the Nabataeans righteous in any sense of the word. It is interesting to note that a collection of 2000 papyri from 259 BC makes mention of the Nabataeans. These papyri were the archives of Zenon, the business agent for one Apollonius, the financial minister of Ptolemy II Philadelphos. In among the papyri was a document that reports the activities of two Nabataean men named Drimylus and Dionysius who made their living by selling slave-girl prostitutes. Their business extended between Joppa and Amman, and into southern Syria. The text shows no surprise at Nabataeans being this far north, nor of their particular business venture: pimping prostitutes. It is also interesting to notice that the papyri mention the purchase of Gerrhean and Minaean frankincense from a Malichus in Moab.

Another early text that mentions 'Nabataeans' is a stele in the Damascus Museum which bears a Nabataean inscription that mentions a "king of the Nabataeans." The stele is dated to the 3rd century BC making it the oldest known Nabataean text.

While archeologists still discuss and debate the origin of the Nabataeans, it is evident that they were firmly entrenched in eastern Palestine by 300 BC. Bible scholars refer to this time as the 400 silent years, when there were no prophets in Israel. History however is not silent, for during this time Greek armies swept the Middle East. A short time later, Alexander the Greats generals divided his kingdom, with Antigonus The-One-Eyed briefly in power in Syria, and Ptolemy in power in Egypt.

It is against this background that the Nabataeans step firmly into written history and begin to build their empire.

Chapter Two

Nabataeans in History (300 BC - 26 BC)

For centuries, the land of Edom was the crossroads for caravans traveling north and south, as well as some of those traveling east and west. The lands of Edom and Moab were connected by a well traveled path, known as the King's Highway.

Along this road, goods from Egypt were transported to Babylon and back, and goods from southern Arabia were transported to the kingdoms in the north. This trade had existed for centuries before the Nabataeans seem to come on the scene.

The Bible tells us the story of the Queen of Sheba bringing gifts to King Solomon, including frankincense and myrrh. Immediately following these verses, the Bible tells us that King Solomon gained tremendous income from taxation. I Kings 10:14-15 records the amount as 666 talents of gold. Footnotes in the New International Version of the Bible calculate this as being around 23 metric tons of gold. Then the Bible tells us that to this total was also added the tribute paid by the Arab merchants and traders and the leaders of the Arabs. Since many of the caravans traveled up the King's Highway, the land of Edom played an important role in the merchant world. As a result, Edom was conquered by the Israelites, the Assyrians, then the Babylonians (Chaldaeans) and finally the Persians. When the Greeks arrived on the scene, Edom was again the center of attention.

When Alexander the Great conquered the Middle East, he brought the entire region under Greek control and he began the process of Hellenization. This was the process of bringing Greek language, thought, and culture to all the lands that were under Greek control. Upon Alexander's death, however, the Greek kingdom was divided up between his generals. The Ptolemies of Egypt and the Seleucids of Syria fought bitterly over control of the region. It was in 312 BC, early in this struggle, that the Nabataeans were suddenly catapulted onto the stage of world history.

Immediately following the dissolution of Alexander's empire, one of his generals, Antigonus The-One-Eyed, briefly rose to a position of power in Syria. He aspired to defeat his rival, Ptolemy, whose power base was in Egypt.

Antigonus' plan for success had two components: military and economic; and the mountain-top settlement of Selah and the Nabataean people figured in both. By this time the Nabataeans had not only made a name for themselves as one of the principle trading powers in the region; they had also established a monopoly on bitumen (see chapter nine) which they harvested from the Dead Sea. They shipped this product to Egypt where it was an essential ingredient in the embalming process. Antigonus felt that if he could gain control of the Nabataean stronghold of Selah, the hub of the caravan routes in the region, then he would gain control over the frankincense and bitumen industry as well. This would mean that he would not only command access to and from Egypt, but he would have in his possession commodities more valuable to the Egyptians than gold.

However, Antigonus did not take into consideration the resistance that the Nabataeans would put up. The historian, Diodorus Siculus, records how Antigonus dispatched his friend, Athanaeus, along with 4,000 infantry and 600 cavalry, to Selah to conquer the Nabataeans and gain control of the Gaza-Sinai trade route, thus checking Egypt's access to Syria and Arabia.

The expedition reached Selah under cover of night and discovered that most of the male population was away at a market, most likely in nearby Busheira, the capital of Edom, leaving the women and children on the top of Selah Mountain for protection.

The Greek army attacked and killed a number of old men, women, and children and made off with a group of prisoners, 500 talents of silver, as well as quantities of frankincense and myrrh. Within an hour the Nabataean men had returned, taken stock of the situation, and were in hot pursuit of the invaders. Athanaeus, not believing that the Nabataeans would return so soon, had been careless in setting out guards. This proved to be a fatal mistake. He and his army were massacred. Only 50 of the cavalry were able to escape.

The mountain of Sela is surrounded by higher hills, but separated from them by tremendous cliffs.

With their people and property recovered, the Nabataeans returned to their rock fortress and drafted a protest note to Antigonus. This set the pattern for their preferring to deal with their powerful neighbors through diplomacy rather than confrontation. Antigonus blamed the whole affair on his friend, the dead Athanaeus, whom he claimed had acted without orders. While drafting this letter, he was busily organizing a second attack, this one to be led by his son, Demetrious-the-Besieger. But Antigonus had not deceived the Nabataeans. The Greek army marched for three days across the trackless desert. As soon as Nabataean spies sighted Demetrious' troops, they set off fire signals that flashed from mountain to mountain. Being forewarned, the Nabataeans deposited what they could not carry on Selah under a strong guard. Then they gathered up their flocks and the rest of their possessions and fled into the desert. After a one-day battle, Demetrious failed to take the rocky fortress.

Then one of the Nabataeans called down to Demetrious from the mountainside. *"King Demetrious, which desire or purpose leads you to fight us? We live in the desert where there is neither water nor grain, nor wine nor anything else which could be of use*

to you. We do not want to live as slaves, and have therefore chosen to live in the desert, in a country where there is a shortage of everything which other people prize. We have decided to live like the beasts in the field and cause you no harm. Therefore we appeal to you and your father to leave us unharmed and, in return for presents which we want to give you, withdraw your troops and in the future consider the Nabataeans as friends. For even if you wanted to, you could not stay more than a few days in this country, for you have no water and no provisions and cannot force us to lead a different life. If you do, all you will have are a few rebellious slaves who cannot change the way they live."

Demetrious agreed and was given lavish presents and an escort out of the desert. His father's great plan had failed miserably.

Antigonus was later succeeded by another of Alexander's generals, Seleucius, who founded a dynasty that renewed and continued the struggle between Syria and Egypt for control of the region, until both were conquered by the Romans.

Around 168 BC, in the time of Judas Maccabeus, the apocryphal Book of Maccabees refers to Aretas, ruler of the Arabs (or Nabataeans as we known them today.) Aretas is known as Aretas I as no previous rulers were known to exist before that time, except perhaps some mention of a ruler who may have been Rabbel I.

Some time later, Josephus tells us that the people of Gaza were attacked (around 100 BC) by the Hasmonean ruler, Alexander Jannaeus. Up until this point, Gaza had acted as a principle seaport on the Mediterranean for Nabataean merchants. The people of Gaza appealed for help to Aretas II (100 - 96 BC), the ruler of the Nabataeans. Aretas, however, did not respond in time and Gaza was taken. While this may appear as a puzzling situation, for Gaza was a very vital port in the Nabataean trading empire, Aretas II was active in other ways. He expanded Nabataean territory to the north, which would later prove to have been a very prudent move. Sometime later, he seems to have negotiated a way for the Nabataean merchants to continue to use Gaza as a port city, since Alexander Jannaeus does not appear to have occupied Gaza (Philip Hammond, The Nabataeans, pg. 16). A later Roman source credits Aretas II with 700 sons.

During the first century BC, Greek historian Diodorus of Sicily wrote about the Nabataeans. He based his work on the eyewitness account of Hieronymus of Cardia who wrote his account in the late 4th century BC when Alexander the Great's empire was being carved up between his ambitious generals.

Diodorus describes the Nabataeans as nomads who: *"range over a country which is partly desert and partly waterless, though a small section of it is fruitful… Some of them raise camels, others sheep, pasturing them in the desert… They lead a life of brigandage and overrunning a large part of the neighboring territory they pillage it. Some had penetrated to the Mediterranean coast where they indulged in piracy, profitably attacking the merchant ships of Ptolemaic Egypt"* (Presumably from Gaza).

It is interesting to note that by the 4th century BC, the Nabataeans had moved from being merchants and pirates in the Red Sea to also operating out of ports on the Mediterranean Sea where the European powers began to experience losses to their ships.

During this period the Nabataeans either used appeasement or formed alliances with whichever of the combatants could give them the best advantage. When necessary they would fight, but only as a last resort. Gradually they expanded their sphere of influence west into the Negev to Wadi al-Arish and beyond into Egypt where they maintained an outpost in Wadi Tumilat. Following their caravans north, they occupied many major

centers on the desert route.

Obodas I (96 - 86 BC) became the next ruler of the Nabataeans, and he continued his father's expansion by moving on northward into Syria as Seleucid rule disintegrated. Obodas managed to ambush Alexander Jannaeus near Gadara, just east of the Sea of Galilee. Using a mass of camel riders, he forced Jannaeus into a deep valley where the Nabataeans completed the ambush and gained their revenge over loosing Gaza.

Around 86 BC, Seleucid ruler Antiochus XII Dionysus, mounted an invasion against Obodas I. Both Antiochus and Obodas died in battle, but the Seleucid army was utterly defeated. The Nabataean Empire, however, was saved. Obodas was buried in the Negev, at a place that was renamed in his honor: Obodat (modern Avdat). Such was his renown that it is believed that he was deified after his death.

As Seleucid rule disintegrated in the north Aretas III (86 - 62 BC), a son of Obodas I continued Nabataean expansion and in 85 BC occupied the great city of Damascus at the request of its citizens. Now Aretas III was not only the ruler of the nomadic Nabataeans, but also the ruler of the world class city of Damascus. Suddenly the backward nomadic Nabataeans were thrust onto the stage of world politics.

Aretas' nomadic desert background was obviously a difficult issue, so, to change his image from that of a backward nomad and desert brigand, he tried to underline that he was heir to the Greek Seleucids. Aretas had coins minted with his image in the Greek style and his name in Greek instead of the Nabataean Arabic. To make his Hellenistic pretensions still clearer, he gave himself the epithet *'Philhellene.'* The impact of these changes was so powerful that 85 BC marks the pivotal change when Nabataeans started to rapidly move from being nomadic to becoming urban dwellers.

The Nabataeans ruled Damascus for over a dozen years. Then, soon after 72 BC, the Armenian king, Tigranes (son of Mithradites VI of Pontus), took Damascus and the Nabataeans retreated peacefully. Tigranes then vacated Damascus in 69 BC in order to deal with a Roman threat against his own capital, and the Nabataeans occupied it again, and controlled it for a number of years. We know this from the Biblical record that tells us that Damascus was under a Nabataean governor during the time of the apostle Paul. 2 Corinthians 11:32-33)

The death of Alexander Jannaeus' widow, Alexandra, in 67 BC, ultimately changed everything for the Nabataeans. Alexandra's elder son Hyranus II, was driven from his throne by his brother Aristobulus and, amazingly enough, he took refuge in the court of Aretas III at Selah. Aretas' espousal of Hyranus' cause soon brought the Nabataeans face to face with the rising power of Rome.

When the Roman leader, Pompey, annexed Syria in 64 BC, his legate, Marcus Aemilius Scaurus, immediately turned his attention to Judea. He was financially persuaded that a Jew by the name of Aristobulus had a claim as the Jewish high priest, so Scaurus ordered Aretas and his army to cease supporting Hyranus II and return to Selah. Aretas did so, unwilling to risk his troops and his country for the sake of Hyranus. Scaurus returned to Syria with his bribe, but Aristobulus, not content with this bloodless victory, pursued the Nabataeans and defeated them, killing 600 of their soldiers.

Following this, Pompey, the Roman leader, began planning to move against the Nabataeans when the continuing feud among the Jewish rulers deflected his attention. In 63 BC Pompey personally took control of Jerusalem and sent Aristobulus and his family (the Jewish high priest) to Rome in chains. Hyranus was then confirmed as high priest

and ethnarch, but denied the title of king.

Having settled the Jewish trouble, Pompey now turned his attention to the wealthy Nabataeans. He dispatched Aemilius Scaurus, who marched through a dry and desert land. The Roman army soon became hungry, thirsty, and exhausted. The expedition was called off at the last moment when a rider appeared on the scene and reported the murder of Mithradites VI, the king of Armenia, by his son Tigranes. Pompey immediately wanted to disengage from the Nabataeans to deal with this last vestige of the Pontic threat. The wily Nabataeans seized the opportunity and offered the Romans 300 talents of silver if they would leave. Pompey accepted and in doing so set a tempting precedent for later Roman generals who wished to improve their personal finances.

Around 62 BC, another Obodas seems to have become a Nabataean ruler, the only evidence being a handful of coins. His heir, Malichus I (59 - 30 BC), played a dangerous game of politics in the hectic changes of early Roman rule. He judged rightly by backing Julius Caesar against Pompey, but then missed his footing in joining Caesar's assassins and their Parthian allies against Antony and Octavian. However, with a skilful blend of wealth and diplomacy learned from his predecessors, he was able to buy his kingdom out of subjection to Rome.

When Antony was given the eastern areas of Rome's dominions, the opportunistic Cleopatra demanded as a gift both Judea (a dependency ruled by Herod the Great), and the still independent kingdom of the Nabataeans, who were now considered allies of Rome.

Despite Antony's infatuation, it was one of the few of Cleopatra's many requests that Antony turned down, though he may have given her a strip of Nabataean land by the Red Sea. Antony was later defeated by Octavian (soon to be known as Emperor Augustus) at the Battle of Actium in 31 BC, and he and Cleopatra ended their lives with suicide. This left the Nabataeans to be their own masters.

In order to prove their alliance with Rome, Malichus I honored a request from Julius Caesar in 47 BC, to provide him with 2000 cavalry during the Roman dictator's Alexandrian campaign.

Obodas III then became the ruler in 30 BC, and ruled until 9 BC. Strabo's Geography, written in the early 1st century AD, tells about Nabataean life under Obodas III.

"The Nabataeans are a sensible people, and are so much inclined to acquire possessions that they publicly fine anyone who has diminished them, and also confer honors on anyone who has increased them. Since they have but few slaves, they are served by their kinsfolk for the most part, or by one another, or by themselves, so that the custom extends even to their ruler. They prepare common meals together in groups of thirteen persons, and they have two girl-singers for each banquet. Their leader holds many drinking-bouts in magnificent style, but no one drinks more than eleven cupfuls, each time using a different golden cup. The ruler is so democratic that, in addition to serving himself, he sometimes even serves the others in his turn. He often renders an account of his leadership in the popular assembly, and sometimes his method of life is examined."

Strabo reveals how the Nabataeans had changed in the intervening years. Strabo's information came from his friend Athenodorus, a Stoic philosopher, tutor of Caesar Augustus, and a native of Petra. These excerpts from Strabo's Geography describe Petra

approaching the zenith of its power:

"The capital of the Nabataeans is called Petra. It is situated on a spot which is surrounded and fortified by a smooth and level rock, which externally is abrupt and precipitous, but within there are abundant springs of water both for domestic purposes and for watering gardens. Beyond the city-enclosure, the country is for the most part a desert. Athenodorus… used to relate with surprise that he found many Romans and also many other strangers residing there… frequently engaged in litigation, both with one another and with the natives; but that the natives had never any dispute amongst themselves, and lived together in perfect harmony… A great part of the country is fertile and produces everything except oil of olives. Instead of it they use the oil of sesame."

On the other hand, Strabo didn't think much of the Nabataean military. He mentions that the Nabataeans *"are not very good warriors on land, rather being hucksters and merchants, not like their fighting at sea."* One can infer from Strabo that the Nabataeans were not only known as desert dwellers and rascals but also as seamen. We will examine this in more detail in chapter five.Strabo adds that Obodas did not care much about public and military affairs. He seems to have given much of his authority to his very active minister, Syllaeus, who some believe may well have been responsible for later poisoning him.

Chapter Three

Nabataeans in History Part II (26 BC - 40 AD)

Whenever tourists visit ancient Roman city sites they are struck with the large number of temples that the Romans built. As the Romans worshiped a pantheon of gods, they were constrained to build temples to these gods wherever they went. As their empire expanded, the number of temples in existence expanded. Each of these temples burned incense. Added to this, incense and myrrh were used at funerals to mask the odor of death. All of this eventually led to a massive demand for incense, which the Nabataeans were not only striving to fill, but also striving to monopolize and exploit.

As a result, great amounts of money were leaving the Roman coffers and being passed on to the Nabataeans. It became so bad that in 26 BC, Agustus Caesar sent an army under the command of the proconsul of Egypt, Aelius Gallus, to discover the lands south of Egypt, to see if there was a land route to southern Yemen, the origin of frankincense. The expedition traveled south from Egypt to explore Troglodytae, or present day Djibouti.

Strabo tells us: *"Augustus Caesar dispatched this general to explore the nature of these places and their inhabitants, as well as those of Ethiopia, for he observed that Troglodytica, which is contiguous to Egypt, bordered upon Ethiopia; and that the Arabian Gulf was extremely narrow where it separates the Arabians from the Troglodytae. It was his intention either to conciliate or subdue the Arabians. He was also influenced by the report which had prevailed from all time, that this people were very wealthy, and exchanged their aromatics and precious stones for silver and gold, but never expended with foreigners any part of what they received in exchange. He hoped to acquire either opulent friends, or to overcome opulent enemies."* (Geography XVI.4.23)

After the first expedition, Augustus Caesar encouraged Aelius Gallus to employ the Nabataeans as guides and escorts on an expedition down the Arabian side of the Red Sea to locate the source of frankincense. You can imagine the predicament this was for the Nabataeans! The Nabataeans were deemed allies of Rome, but if the Romans discovered their source of frankincense, then the Romans would simply sail down the Red Sea and buy directly from the South Arabian kingdoms, thus excluding the Nabataeans from their lucrative trade.

It appears that Syllaeus, the chief minister of Obodas II, had a clever solution to the problem. He agreed to lead the expedition, and together with a contingent of Nabataean camel cavalry, took his place at the head of the Roman Army with the Roman General Aelius Gallus. First, however, the Roman Army needed to get from Egypt to Arabia. The Romans decided to build a fleet of boats for this purpose.

Strabo tells the story this way:

"He (Aelius Gallus) was, moreover, encouraged to undertake this enterprise by the expectation of assistance from the Nabataeans, who promised to cooperate with him in everything. Upon these inducements Gallus set out on the expedition. But he was deceived by Syllaeus, the king's minister of the Nabataeans, who had promised to be his guide on march, and to assist him in the execution of his design. Syllaeus was, however, treacherous throughout; for he neither guided them by a safe course by sea along the coast, nor by a safe road for the army as he promised, but exposed both fleet and the

army to danger by directing them where there was no road, or the road was impracticable, where they were obliged to make long circuits, or to pass through tracts of country destitute of everything; he led the fleet along a rocky coast without harbors, or to places abounding with rocks concealed under water, or with shallows. In places of this description particularly, the flowing and ebbing of the tide did them the most harm.

The first mistake consisted in building long vessels of war at a time when there was no war, nor any likely to occur at sea. For the Arabians, being mostly engaged in traffic and commerce, are not a very warlike people even on land, much less so at sea. Gallus, notwithstanding, built not less than eighty biremes and triremes and galleys at Cleopatris, also called Arsino', and near Hero'polis, near the old canal which leads from the Nile.

When he discovered his mistake, he constructed a hundred and thirty vessels of burden, in which he embarked with about ten thousand infantry, collected from Egypt, consisting of Romans and allies, among whom were five hundred Jews and a thousand Nabataeans, under the command of Syllaeus. After enduring great hardships and distress, he arrived on the fifteenth day at Leuce-Come, a large mart in the territory of the Nabataeans, with the loss of many of his vessels, some with all their crews, in consequence of the difficulty of the navigation, but by no opposition from an enemy.

These misfortunes were occasioned by the perfidy of Syllaeus, who insisted that there was no road for an army by land to Leuce-Come, to which and from which place the camel traders travel with ease and in safety from Selah, and back to Selah, with so large a body of men and camels as to differ in no respect from an army." XVI.iv.24

After landing the army, with the loss of men and ships, they headed inland, and south towards southern Arabia. Then things got worse.

"Gallus, however, arrived at Leuce-Come, with the army laboring under stomacacce and scelotyrbe, diseases of the country, the former affecting the mouth, the other the legs, with a kind of paralysis, caused by the water and the plants (which the soldiers had used in their food). He was therefore compelled to pass the summer and the winter there, for the recovery of the sick."

The following spring they set out again. Strabo tells the story:

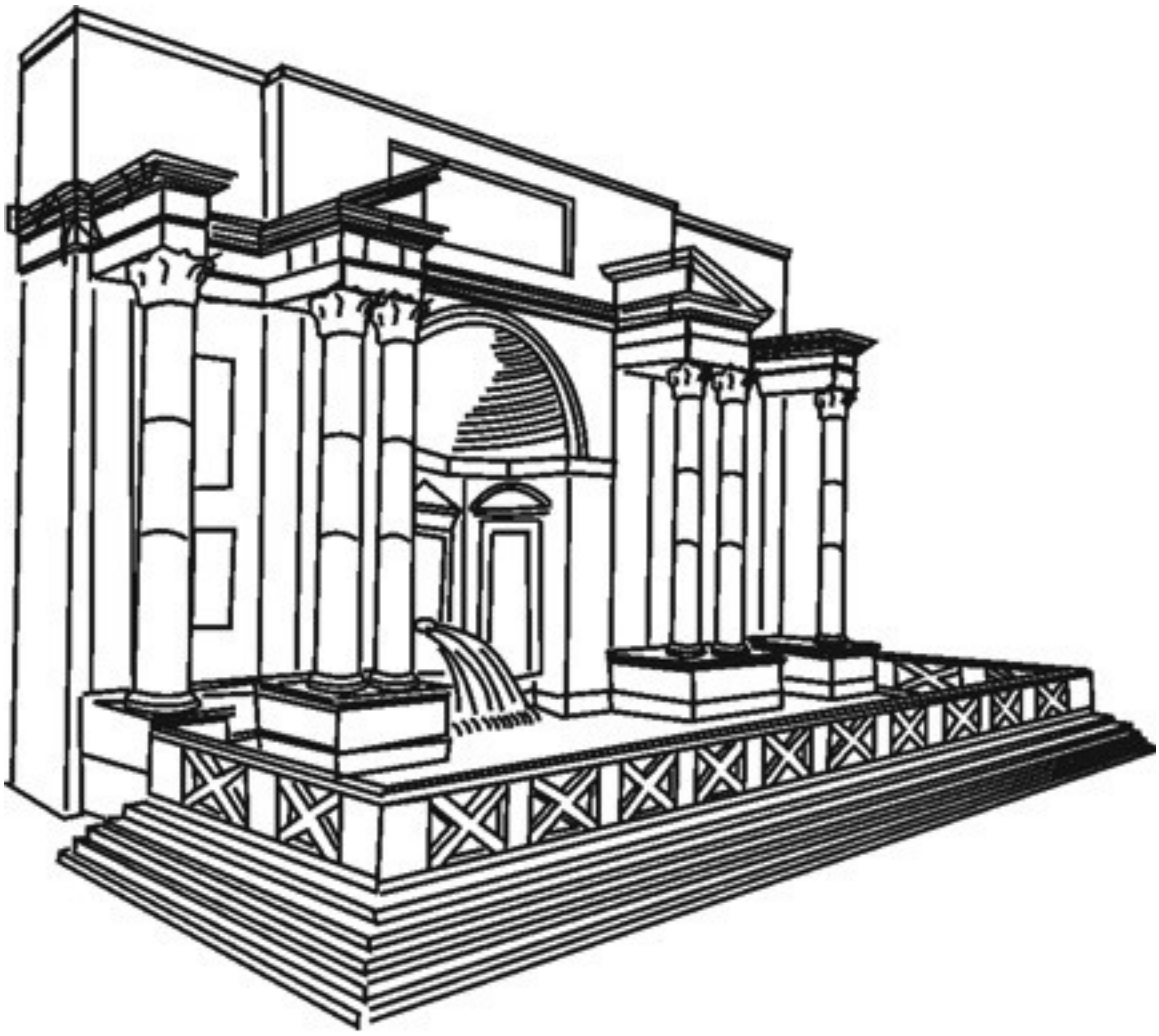
"Gallus, setting out again from Leuce-Come on his return with his army, and through the treachery of his guide, traversed such tracts of country, that the army was obliged to carry water with them upon camels. After a march of many days, therefore, he came to the territory of Aretas (modern Medina?), *who was related to Obodas. Aretas received him in a friendly manner, and offered presents. But by the treachery of Syllaeus, Gallus was conducted by a difficult road through the country; for he occupied thirty days in passing through it. It afforded barley, a few palm trees, and butter instead of oil.*

The next country to which he came belonged to the nomads, and was in great part a complete desert (the Debae). *It was called Ararene. The king of the country was Sabos. Gallus spent fifty days in passing through this territory, for want of roads, and came to a city of the Nejrani* (Mecca?)*, and to a fertile country peacefully disposed. The king had fled, and the city was taken at the first onset. After a march of six days from thence, he came to the river (in the land of the Minae).*

Here the barbarians attacked the Romans, and lost about ten thousand men; the Romans lost only two men. For the barbarians were entirely inexperienced in war, and used their weapons unskillfully, which were bows, spears, swords, and slings; but the

greater part of them wielded a double-edged axe. Immediately afterwards he took the city called Asca (modern Al-Lith?)*, which had been abandoned by the king. He thence came to a city Athrula* (modern Abha?)*, and took it without resistance; having placed a garrison there, and collected provisions for the march, consisting of grain and dates he proceeded to a city Marsiaba, belonging to the nation of the Rhammanitae, who were subjects of Ilasarus* (east of modern San'a?)*. He assaulted and besieged it for six days, but raised the siege in consequence of a scarcity of water. He was two days' march from the aromatic regions, as he was informed by his prisoners.*

He occupied in his marches a period of six months, in consequence of the treachery of his guides. This he discovered when he was returning; and although he was late in discovering the design against him, he had time to take another route back; for he arrived in nine days at Negrana (near modern Sa'dah?)*, where the battle was fought, and thence in eleven days he came to the "Seven Wells"* (modern Al-Qunfudhah?)*, as the place is called from the fact of their existing there. Thence he marched through a desert country, and came to Chaalla, a village, and then to another called Malothas* (modern Jeddah?)*, situated on a river. This road then lay through a desert country, which had only a few watering-places, as far as Egra a village. It belongs to the territory of Obodus, and is situated upon the sea.*



A reconstruction of the Nymphium or public fountain in the center of Petra

He accomplished on his return the whole distance in sixty days, in which, on his first journey, he had consumed six months. From Negra he conducted his army in eleven days to Myus Hormus; thence across the country to Coptus, and arrived at Alexandria with so much of his army as could be saved.

The remainder he lost, not by the enemy, but by disease, fatigue, famine, and marches through bad roads; for seven men only perished in battle. For these reasons this expedition contributed little in extending our knowledge of the country. It was however of some small service. Syllaeus, the author of these disasters, was punished for his treachery at Rome. He affected friendship, but he was convicted of other offences, besides perfidy in this instance and was beheaded (actually he was killed by being thrown from a cliff)." XVI.iv.25

Gallus accused Syllaeus of treachery, charging that the Nabataean minister had deliberately led the Romans across the most arid and desolate land he could find, using the most circular route he could think of. The route the army took, however, was an established trade route; although it was one that the Nabataeans seldom used. History has shown us that the real treachery was keeping the maritime route a secret from the Romans. Syllaeus then managed to peacefully get away from the Romans and return to Petra a hero. Along with defeating the Roman army, he had used the Romans to greatly weaken the South Arabian kingdom of Saba allowing the sea based Himyarites, the kingdom friendliest to the Nabataeans to overcome them later that year (25 BC). We will look at this in more detail later.

Obodas confirmed Syllaeus as chief minister and almost immediately, Syllaeus initiated negotiations with both the Romans and Herod the Great, a long time foe of Nabataea. Some think Syllaeus was setting himself up to be the next king.

Obodas was assassinated in 9 BC, (possibly poisoned by Syllaeus) and Aenaeas took possession of leadership, and took on the name Aretas IV. A short time later Syllaeus found himself in shackles, and was transported to Rome. He was tried by a Roman court for the murder of Obodas, found guilty, and pitched headlong from the Tarpeian Rock in 6 BC.

In 9 BC a war broke out between Herod and the Nabataeans. Again we are entirely dependant on the narrative of Josephus, based on a much fuller contemporary narrative by Nicolus of Damascus, who himself acted as Herod's envoy to defend his actions before Augustus. (Josephus Ant. XVI, 9, 1-4: 271 - 299, 9, 8-9: 335-355)

In brief, the conflict developed as follows. In 12 BC, while Herod had been absent, the Nabataeans had encouraged the inhabitants of Trachonitis, now under Herod's rule, to revert to brigandage, and had given asylum to forty of their 'bandit chiefs'. Using a base provided for them in Nabataean territory, they raided not only Judea but into the province of Syria, and quite possibly the cities of the Decapolis. Herod could and did repress those in Trachonitis, but he could do little about those operating out of Nabataean territory. He appealed to the governors of Caesar, Saturninus, Volumnius, and Sentius Saturninus, and the procurator of the province. No question of Roman military interception seems to have arisen. They merely decided that the Nabataeans would pay a debt due to Herod and that refugees on both sides should be restored. Only when this was not done did they give Herod permission to invade Nabataea. After a successful invasion and a minor battle, Herod settled a colony of three thousand Idumaeans to control Trachonitis, and wrote to

the Roman officials explaining his actions.

The affair was further complicated by the death of Obodas, the king of Nabataea, and the accession of Areneas, without Augustus' permission. The Romans considered the Nabataeans not only allies but subjects of Rome. The Nabataeans considered themselves subject to no one.

Areneas then changed his name to the more kingly one of Aretas. Unlike Aretas II who had looked abroad for his epithet 'Philhellene', Aretas IV called himself *rym 'mh* or '*he who loves his people*.' During his long reign (9 BC - 40 AD), the Nabataeans reached the height of their economic and cultural development. They built new towns and enlarged and embellished old ones. Many of the major monuments in Petra were built during this time, as well . They also extended their irrigation schemes and expanded their agricultural base.

Some writers have felt that an attractive feature of the Nabataeans at this time was the status they accorded women. Inscriptions at Meda'in Saleh in Saudi Arabia indicate that Nabataean women, unlike many of their contemporaries, inherited and owned property in their own right. Also, from the time of the democratic Obodas II onwards, the queen's profile appears on coins together with that of her husband or, in the case of a regency, her son. Aretas IV seems to have had two wives, apparently successively rather than together; the first was Huldu, and the second Shaqilath. Another Shaqilath appears as the consort of his successor Laichus II, and later with her son, the last Nabataean king, Rabbel II during his rule as a minor.

In 6 AD, Rome annexed Herod the Great's realm and created the Province of Judea. The Nabataeans denied Herod the Great asylum when he tried to seek refuge there. Herod then made his way to Rome and convinced Augustus of his legitimate claim to the throne. He also held a grudge against the Nabataeans and a number of border skirmishes ensued. In an attempt to end the fighting, Aretas IV married one of his daughters to Herod Antipas, a son of Herod the Great. When Herod the Great died in AD 4, his kingdom was divided between his three sons who had escaped his recurrent murderous moods. Herod Antipas became the tetrarch of Galilee and Paraea. For a while this resulted in good relations, but in AD 27, Antipas fell passionately in love with his niece, Herodias. She was the mother of Salome and the wife of Antipas' brother, Herod Philip. To marry her, which outraged religious opinion, he divorced his Nabataean wife, which outraged Aretas. John the Baptist's outspoken condemnation of the marriage and his subsequent imprisonment and execution at the instigation of the delinquent Herodias are well known. Less well known is that the spurned Nabataean wife went quietly home to Petra and Aretas launched an expedition against his old son-in-law and new enemy.

Aretas IV assembled an army and defeated Herod Antipas' army, but the Nabataean king was unable to do more. The Romans decided to come to Herod's defense to defend his honor, and the honor of the Empire.

Later, during a brief revival of Nabataean rule in Damascus under Aretas IV, the apostle Paul made his famously undignified exit from the city. The Bible tells us that this was when *'the governor under King Aretas guarded the city… in order to seize me, but I was let down in a basket through a window in the wall and escaped his hands.'* (2 Corinthians 11:32-33)

Chapter Four

Nabataeans in History Part III (40 AD - Present)

Damascus was finally lost to the Nabataeans under Malichus II (AD 40 -70 AD), son of Aretas IV. Little is known of him, but according to Josephus he sent Emperor Titus 1000 cavalry and 5000 infantry which took part in the destruction of Jerusalem in AD 70.

In that same year, Rabbel II, the last of the Nabataean rulers, came to the throne. Rabbel II was a minor and his mother, Shaqilath, acted as his regent for six years. Rabbel, who seems to have preferred the city of Bostra in the north of his kingdom, was known as *hyy wsyzb 'mh or 'he who brings life and deliverance to his people'*. Some feel this refers to his putting down a rebellion in Saudi Arabia. During Rabbel's reign, the kingdom enjoyed a period of peace and prosperity. However, it was at the end of his reign that Rome took over.

At the height of its power, Nabataea stretched from Damascus southward into northern Arabia. It was bordered on the west by the Roman-held lands comprised of Judea, Samaria, Galilee, Paraea, and the Decapolis and by Egypt. The Nabataeans' eastern border, being in the desert, was undefined but could be said to stretch to the borders of Parthia. Thanks to the extraordinary Nabataean genius for water management, their agriculture flourished in the desert. Their trading empire, dealing in luxury goods, linked the Mediterranean world with China, India, Parthia, and Arabia.

Rabbel II disappears from the scene in AD 106 when the Roman legate of Syria, Corelius Palma, annexed the Nabataean kingdom on behalf of the Emperor Trajan, and incorporated it as the new Province of Arabia. While historical records have not yet been discovered that describe this takeover, it is interesting to notice that, after 106 AD, the Nabataeans continued as a distinct people within the Empire and even enjoyed a period of economic prosperity in the later Byzantine era. Right after the Roman takeover, coins were minted referring to *'Arabia adquista'* or the *acquired* not *captured* Arabia.

Under the Romans

Once Roman rule was established, Claudius Severus built a new paved road which eventually linked the northern city of Bostra with the Red Sea port of Aila (Aqaba) in the south. The road was some 500 kilometers in length, and was known as the Via Nova Traiana. It was completed in 114 AD and followed much the same path as the ancient caravan routes and the King's Highway. Now troops as well as items of trade could be moved speedily from one place to another.

It is unclear if Petra was the capital of the Province of Arabia in its early years. The role was certainly passed to Bostra, which Trajan rebuilt and named after himself, *Nea Traiane Bostra*. Petra certainly was still of great eminence and was an important administrative center being the only city in the province to which Trajan gave the title 'metropolis.' However, it was Hadrian, who visited Petra in 130 AD on his grand tour of the eastern Roman Empire, who gave the city his name, *Petra Hadriane*.

Many years later (260 AD), the Sassanid Persians attacked the province of Syria and captured Antioch, taking the Emperor Galerian prisoner. The now rich and powerful Arab kingdom of Palmyra came to Rome's help and repelled the Persian invasion. This move placed the Palmyrans in the role as Rome's ally and buffer against the east, just as the

Nabataeans had once been in the south.

The city of Petra flourished for at least a century more, thanks to her citizens who continued trade and agriculture. However, by the mid 3rd century AD, with the economy of the whole region under pressure, the city began a slow and irrecoverable decline. The Emperor Diocletian briefly checked the slide of the Roman provinces at the end of the third century by political reorganization, enlargement of the army and re-fortifying of the provinces. The northern half of the Province of Arabia retained its old name, but the south, including Petra and the lands below Wadi Hasa became part of the Province of Palestine, *Palestina Tertia.*

Byzantine Petra

In 330 AD, Emperor Constantine the Great transferred the capital of the Roman Empire to the Greek city of Byzantium and rebuilt and gloriously embellished it. In 313 AD, Christianity was proclaimed the official religion of the empire, and Constantine formally dedicated his capital, New Rome (Constantinople), on May 11, 330.

The Nabataeans and Petra in particular had already had its Christian martyrs during the persecution of Diocletian. These thought provoking examples must have had the de-Christianizing effect Diocletian desired, for very soon afterwards, the Christian chronicler, Eusebius, thundered against Petra for being filled with superstitious men who had sunk in diabolical error. However, churches were already being built there.

In the mid-4th century, Bishop Asterius of Petra was named as a participant in the Arian controversy, that long and bitter dispute over whether Christ was of one nature with the Father, or merely shared a similar nature. Asterius started as an Arian but ended up on the orthodox side. For this he was banished by the pro-Arian Emperor, Constantius, but later recalled by the more tolerant Julian the Apostate.

Pagan worship continued in the Nabataean areas, side by side with Christianity, for a number of years. Then a certain monk, called Mar Sauma, felt called upon to rectify this situation, so he and his forty brother monks, who were traveling around the Empire, destroying pagan temples, arrived in Petra in 423 AD to find the gates shut fast against them. Their demands to be let in, accompanied by threats of attack if they were not, coincided with a rainstorm of such intensity that part of the city wall was broken, and the monks managed to enter. The whole episode was deemed to be of truly miraculous significance as there had been an unbroken drought for four years and the impressed pagan priests duly converted to Christianity.

Over the following century or so, bishops from Petra took part in the various councils of the Church, convened to discuss the series of doctrinal disagreements which followed the Arian controversy with increasing frequency.

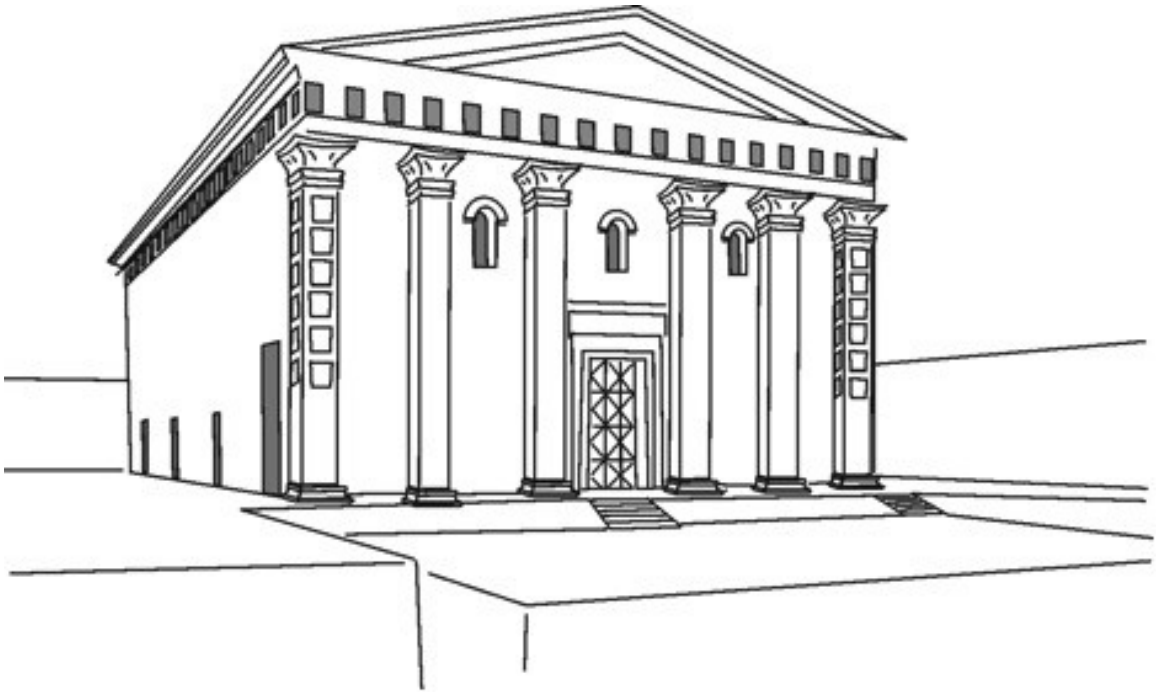
Petra also seems to have become a place of exile for troublesome or heretical priests, prelates, or prominent laymen who failed to agree with the Emperor or with the decisions of these councils. The most famous such exile, according to one contemporary document, was Nestorius, one of the promoters of the Nestorian heresy, which was condemned at the Council of Ephesus in 431. The city must have been in a prophetically lamentable condition by then, well chosen for those sentenced to contemplate the error of their ways, for an earthquake on May 19, 363 had destroyed half of it, and economic slide and decline continued thereafter. It was during this time (4th Century AD), that the Urn Tomb in Petra was transformed into a church.

In the early 1990s, archeologists also uncovered the remnants of a Byzantine era church in Petra with intact mosaics and 50 letters written in Greek. The last reference to a resident bishop is to Athenogenus, a nephew of Emperor Maurice (582-602).

Coin evidence from around the Colonnade Street shows that shops were still in use there during the fourth century, but commercial activity had largely ceased by the fifth century.

A fourth century Syriac letter, attributed to Bishop Cyril of Jerusalem, discusses major earthquake destruction at Petra on May 19, 363. Some parts of the city continued in use afterwards, but it seems that most of the civic buildings ceased to function.

During the fifth and sixth centuries, most of the forts that formed the Roman-Byzantine security belt east of Petra were abandoned. On July 9, 551, another devastating earthquake reduced most of what remained of Petra to heaps of rubble. It was never rebuilt and the bishops departed bringing all records to an end as far as have been discovered to date.



The 'Great Temple' in Petra, possible location of the Royal Courts

Islamic Years

In 629 AD, the armies of Islam came out of Arabia and clashed with the Byzantine army at Mu'tah in south Jordan. They were initially repulsed, but attacked again, and the Byzantines were defeated at the Battle of Yarmuk in August 636. The Islamic generals marched on to Damascus and established the Umayyad Caliphate in 661 AD.

During the Umayyad period (661 - 750 AD), Petra was on the direct route to Mecca, and had some prosperity. When the Abbasid dynasty transferred their capital to Baghdad in 750 AD, the city sharply declined.

There seems to have been a serious earthquake in 747 AD which destroyed the city of Jerash, and caused extensive damage throughout Jordan and Palestine. It is assumed that the final citizens of Petra, if there were any left, abandoned the city at that time. By

this time, most of the other Nabataean cities had disappeared from historical record as well.

The Crusaders

The silence was broken by the arrival of the Crusaders in the early 12th century. Some Christian monks, who still inhabited the Monastery of St. Aaron on Jebal Haroun, the highest mountain in the Petra area, asked King Baldwin I of Jerusalem for help as they were under threat from Saracen raiders on the ancient trade route. Baldwin then realized the strategic importance of this area, and established the district of Oultre Jourdain, an outpost of the Kingdom of Jerusalem. The people of the area resisted the crusaders and were punished by being smoked out of the caves in which they lived.

To defend their new territory, the Crusaders built a string of fortresses in the eastern mountains. In the area they called *Li Vaux Moise*, or the *Valley of Moses* (Wadi Mousa), the largest and strongest castle was built just outside Petra. A smaller fort was built on al-Habis, a high point in the heart of the ancient city, to complete their signaling sight-line to Jerusalem. The fortifications of Outre Jourdain were strengthened after several major clashes with Muslim forces culminating in the construction of the great Crusader fortress at Kerak (Le Krac des Moan) in 1142.

The Li Vaux Moise castle was abandoned in 1189, the last of the eastern fortresses to surrender to Salah ad-Din (Saladin). The Christian Pilgrim, Theitmar, refers to Petra's fortresses in 1217 and several later Arab writers mention the former Crusader fortresses at Petra. The Arab geographer, Yaqut al-Hamawi, in 1225, lists castles named Al Wu'eira and Selah near Wadi Mousa. The Mamluke Sultan, Baibars passed through Petra in 1276 on his way to suppress a political revolt at Kerak. His chronicler, Muhdi el-Din Ibn 'Abd el-Zaher, mentions the fortress of Al Aswit (probably Al Habis castle) at Petra.

During the following centuries sandstorms and floods eroded the monuments, and sand and debris flooded down the ravines burying much of the city under tons of debris. As far as the west was concerned, all knowledge of Petra and the Nabataeans was lost. Only the Bedouin who occasionally herded sheep near the canyons knew of the ancient city's existence.

Rediscovery

The first modern European to see Petra was Johannes L. Burckhardt, a Swiss geographer and scholar who traveled in 1812 disguised as Ibrahim bin Abdallah, a Muslim pilgrim. His drawings and descriptions of Petra brought it to the attention of the west. However, even today, many westerners know little of the ancient Nabataeans and their kingdom. Few are acquainted with the concept that the Nabataeans traded goods from China to Italy, and built their secret city in a hidden desert canyon.

Recently, one hundred and twenty five Nabataean scrolls were found in the ruins of a Byzantine church, in Petra. The scrolls had been charred when the building burned around AD 600, but were still legible. Experts believe these records of daily life in Petra may hold clues to the demise of the city after the Romans took control in AD 106 and rerouted the caravan trade away from Petra. A Nabataean papyrus was also found in a cave at Muraba'at on the shores of the Dead Sea.

Today the hidden city of Petra is again gaining attention, this time as a tourist center. Each year thousands of tourists make the long trip through the crack in the canyon wall to

stand in awe before the Nabataean Treasury, and then to move on through the ancient city streets lined with tombs, temples, and warehouses.

Chapter Five

Nabataeans on the High Seas

A number of things made the Nabataeans distinctive from other tribes in Arabia. One of them was their ability as seamen. Where did they learn their seamanship? It may have been in the marshlands of southern Iraq where water transport was easier than land transport. Or it may have been that after repeated conflict with Sennacherib of Assyria, they moved south into Arabia, and developed skills as seamen while they lived on the coasts and in the ports of Bahrain, Saudi Arabia, and Oman. Perhaps it was during this time that they visited the ports of Persia and adopted the many Zoroastrian customs that are attributed to them.

Certainly there was trade taking place between Arabian ports and the Indian subcontinent long before the turn of the BC/AD millennium. Perhaps the Nabataeans developed their sailing abilities when they settled along the Red Sea. Whatever the case, they were active as pirates by the time the Egyptian and Greek empires came along.

Diodorus gives an account of Nabataean life in the Sinai Peninsula in II.42.1-5 where he describes the oasis of Feiran, (Biblical Paran as mentioned in Numbers 10:12, 12:16, 13:26, Deuteronomy 1:1, 33:2). This oasis is near the Red Sea, and has a palm grove and a large Egyptian shrine. The Nabataeans were preceded in this area by the Lihyanites, who later became their allies. At the Nabataean city of Egra there is an inscription written in Nabataean stating Mas'udu king of Lihyan. The oasis of Feiran and accompanying gulf were probably known as the Laeanites Gulf during the time that the Nabataeans lived there.

Diodorus tells us: "*After one has sailed past this country, the Laeanites Gulf comes next, about which are many inhabited villages of Arabs who are known as Nabataeans. This tribe occupies a large part of the coast and not a little of the country which stretches inland, and it has a people beyond telling and flocks and herds in multitude beyond belief. Now in ancient times these men observed justice and were content with the food which they received from their flocks, but later, after the kings of Alexandria had made the ways of the sea navigable for their merchants, these Arabs not only attacked the shipwrecked, but fitting out pirate ships and preyed upon the voyagers, imitating in their practice the savage and lawless ways of the Tauri of the Pontusl. Some time afterwards, however, they were caught on the high seas by some quadriremes and punished as they deserved.*" (III.43.4)

Quadriremes (galleys with four banks of oars) were ships powered by both oars and a sail. They were originally built by the Greeks, and used for hundreds of years. (Quinqueremes or *galleys of five* replaced the quadriremes during the Punic Wars 264 -146 BC.) Diodorus also mentions that this took place during the time that the kings of Alexandria made the sea navigable for their merchants. Since the Nabataeans conducted themselves as pirates on the Red Sea, this most likely refers to the building of seaports along the Egyptian coast. This also points to the period stemming from 300 BC, soon after the Greek generals set up the Ptolemaic kingdom in Alexandria. For example, the seaport of Berenike Berenice) was the southernmost and most active Egyptian Red Sea port during Hellenistic and Roman times. It was founded by Ptolemy II Philadelphos early in his reign (around 283 B.C.), who named it after his mother. It seems that during

the time this port was built and functioning, the Nabataeans were conducting piracy by preyed on ships sailing the Red Sea.

Later, around 250 BC, as the Nabataeans started to become the principle power in the lands left empty by the Edomites, they established Selah as their capital and Aila (modern day Aqaba) as their sea port. From here, the Nabataeans continued to move on, this time to the Mediterranean coast where they set themselves up in the port city of Gaza. From these two ports they could effectively pirate both the Red Sea and the Mediterranean Sea.

The first century BC Greek historian, Diodorus of Sicily, tells us that the Nabataeans, "*... lead a life of brigandage and overrunning a large part of the neighboring territory they pillage it. Some had penetrated to the Mediterranean coast where they indulged in piracy, profitably attacking the merchant ships of Ptolemaic Egypt.*" (Diodorus, Book II 48.2)

From these accounts we can conclude that the Nabataeans were equally at home on the seas as they were in the desert. However, not only did they engage in piracy, they also engaged in merchant trade which was considered near-piracy by those buying and selling to merchants.

Early Travels and Trade

Some people are surprised at the thought of early sea trade by the Arabs, but around 510 BC Darius the Great, king of Persia, sent one of his officers, Scylax of Caria, to explore the Indus. Scylax traveled overland to the Kabul River. Having reached the Indus he then followed it to the sea. From there he sailed westward, and, passing by the Persian Gulf, which was already well known, explored the Red Sea, finally arriving at Arsino', near modern Suez.

Another early historian, Herodotus, wrote of Necho II, king of Egypt in the late 7th and early 6th centuries BC, that "when he stopped digging the canal… from the Nile to the Arabian Gulf… sent forth Phoenician men in ships ordering them to sail back by the Pillars of Hercules." According to the story, they did this in three years. Upon their return, "*they told things… unbelievable to me,*" says Necho, "*namely that in sailing round Libya they had the sun on the right hand.*" Whatever he thought of the story of the sun, Herodotus was inclined to believe what the voyage revealed in his comment: "*Libya, that is Africa, shows that it has sea all round except the part that borders on Asia*." Strabo records another story with the same theme. One man named Eudoxus, returning from a voyage to India about 108 BC, was blown far to the south of Cape Guardafui in Africa. When he landed he found a wooden prow with a horse carved on it, and he was told by the Africans that it came from a wrecked ship of men from the west.

The greater part of the campaigns of the famous conqueror Alexander the Great were military exploratory journeys. The earlier expeditions through Babylonia and Persia were through regions already familiar to the Greeks, but the later ones, through the enormous tract of land from the south of the Caspian Sea to the mountains of the Hindu Kush, brought the Greeks a great deal of new geographical knowledge. Alexander and his army crossed the mountains to the Indus Valley and then made a westward march from the lower Indus to Susa through the desolate country along the southern edge of the Iranian plateau. Nearchus, his admiral, in command of the naval forces of the expedition, waited for the favorable monsoon and then sailed from the mouth of the Indus to the mouth of

the Euphrates, exploring the northern coast of the Persian Gulf on his way.

During the time of the Ptolemies of Egypt, Nabataean merchants regularly brought eastern goods to the various Egyptian ports on the Red Sea. These goods then made their way to Alexandria, allowing the city to become the world's greatest center of trade.

The Periplus Maris Erythraei is an ancient manual for merchants traveling to India. It was written in the second half of the 1st century A.D. by a man with a Greek name, living in Alexandria. This manual is very important as it shows us to what extend the shipping lanes had gained in importance at the expense of the overland caravan routes, and provides us with details about ancient cargoes and ports.

As the coasts became well known, the seasonal character of the monsoon winds was skillfully used. The southwest monsoon was long known as Hippalus, named for a sailor who was credited with being the first to sail with it direct from the Gulf of Aden to the coast of the Indian peninsula. During the reign of the Roman emperor Hadrian in the 2nd century AD, traders reached Siam (now Thailand), Cambodia, Sumatra, Java, and a few seem to have penetrated northward to the coast of China.

In AD 161, according to Chinese records, an embassy came from the Roman emperor Marcus Aurelius to the emperor Huan-ti, bearing goods that Huan-ti gratefully received as "*tribute*." Were these Romans or Nabataean traders acting "*in the name of Rome?*" It is interesting to note that Ptolemy, the Roman geographer, did not know of these voyages, and on his maps he brought the peninsula of Colmorgo (Malay) southwestward to join the eastward trend of the coast of Africa, thus creating a closed Indian Ocean. He presumably did not believe the story of the circumnavigation of Africa by earlier explorers, and did not know of sailors arriving in China in the name of Rome.

The Arabs were very successful in dominating the eastern sea routes from the 1st century BC to the 15th century AD. A collection of Arabian tales called *The Thousand and One Nights* recounts the daring exploits of Sinbad the Sailor. Behind the fiction the knowledge of these adventurous Arab sailors and traders can be found, as the stories supply us with detail to fill in the outline of the geography of the Indian Ocean.

Regarding the Nabataeans of this time, it is interesting to notice that the historian Strabo mentions that the Nabataeans "*are not very good warriors on land, rather being hucksters and merchants, not like their fighting at sea.*" One can infer from Strabo that the Nabataeans were known for their seamanship and piracy, but their land-based military was rather poor.

Later, Josephus gives us the story of Cleopatra and Antony's foiled escape. After their defeat by Octavian (soon known as Augustus) at Actium in 31 BC, Antony and Cleopatra tried to escape on the Red Sea, but their fleet of 60 ships was caught by the Nabataeans and destroyed. This again left the Nabataeans again masters of the seas, and Cleopatra and Antony ended their lives by suicide.

The Development of Ship Design

Using the development of ship building in Europe, Arabia, and China we can begin to grasp the effectiveness of the Nabataean merchant marine as well as the tremendous distances they traveled in order to obtain their goods. Most of us are familiar with ships from a European perspective. Many of the books available today give only the European side of shipbuilding. Therefore, we will start there.

European Sailing Ships

The traditional form of sea-going travel on the Mediterranean Sea involved the combination of the square sail and rowing. The square sail was used with little modification from Egyptian times throughout the Roman Empire and on to the time of the Viking long boats.

When the Nabataeans showed up on the Mediterranean Sea with their Arab boats, the Romans took immediate notice. Arab pirate boats sailing out of Gaza could make better use of the wind, and in many situations out-sailed the slower Roman boats. This triangular sail was most likely developed on the Red Sea where strong winds often blew from the wrong direction for sailors. The traditional square sail of Rome and India was severely hampered in these conditions, and it seems that on the Red Sea the triangular sail quickly replaced it. Soon the Romans began to adopt the use of the Arab sail pattern, and eventually the Vikings in the north of Europe called the triangular Arab sail the "*lateen*" or Latin form of sail.

The lateen sail was a triangular sail that was affixed to a long yard or crossbar, mounted at its middle to the top of the mast, and angled to extend aft far above the mast and forward, down nearly to the deck. The sail, with its free corner secured near the stern, was capable of taking the wind on either side. The lateen sail enabled the vessel to tack into the wind, immensely increasing the potential of the sailing ship by allowing the ship to sail close to the wind.

Then, sometime around the turn of the millennium, shipbuilders in China started using the sternpost rudder. No one knows who invented it, but shortly after this, Arab shipbuilders adopted this invention onto their Dhows. This allowed the Dhow to have greatly increased maneuverability, as it allowed them to take full advantage of their improved sail power in tacking into a contrary wind.

This was followed by the introduction of the magnetic compass, originally invented in China around 200 - 300 BC. The compass provided a means of checking navigation on the open seas in any weather. Arab sailors had all three of these advantages as they developed their knack for sailing during the five hundred years that the Nabataeans dominated the seaways. Later, as the Nabataean empire waned, the Arabs of south Yemen and Oman took their place as maritime traders between Asia and Europe.

Another important skill was navigation by the stars. A few decades ago, those who suggested that astronomy had reached an advanced state, long before the invention of the telescope, were generally ridiculed, or ignored. But in the past few decades, evidence has mounted overwhelmingly. Many scholars now accept that the precession of the equinoxes (supposedly discovered by the Greeks) was actually known, in pre-Dynastic Egyptian times.

A systematic kind of astronomical observation began in very early times. The most ancient astronomical texts presently known are dated from the Egyptian Ninth Dynasty (2150 BC). These texts are called '*diagonal calendars*' or '*diagonal star clocks*'. They give the names of the thirty-six decans, or stars which rose at ten-day intervals at the same time as the sun. More elaborate star charts were found in the New Kingdom on the ceiling of the tomb of Senenmut, Queen Hatshepsut's architect, and on the ceiling of the temple of Abydos. In the tombs of Ramesses IV, VII, and IX, inscriptions which relate to the first and the sixteenth day of each month, give the position occupied by a star at each of the twelve hours of the night in relation to a seated figure.

Using their knowledge of astronomy and the equinoxes, sea-going Arab sailors could

navigate their way across the Indian Ocean by the stars, rather than following the coastline.

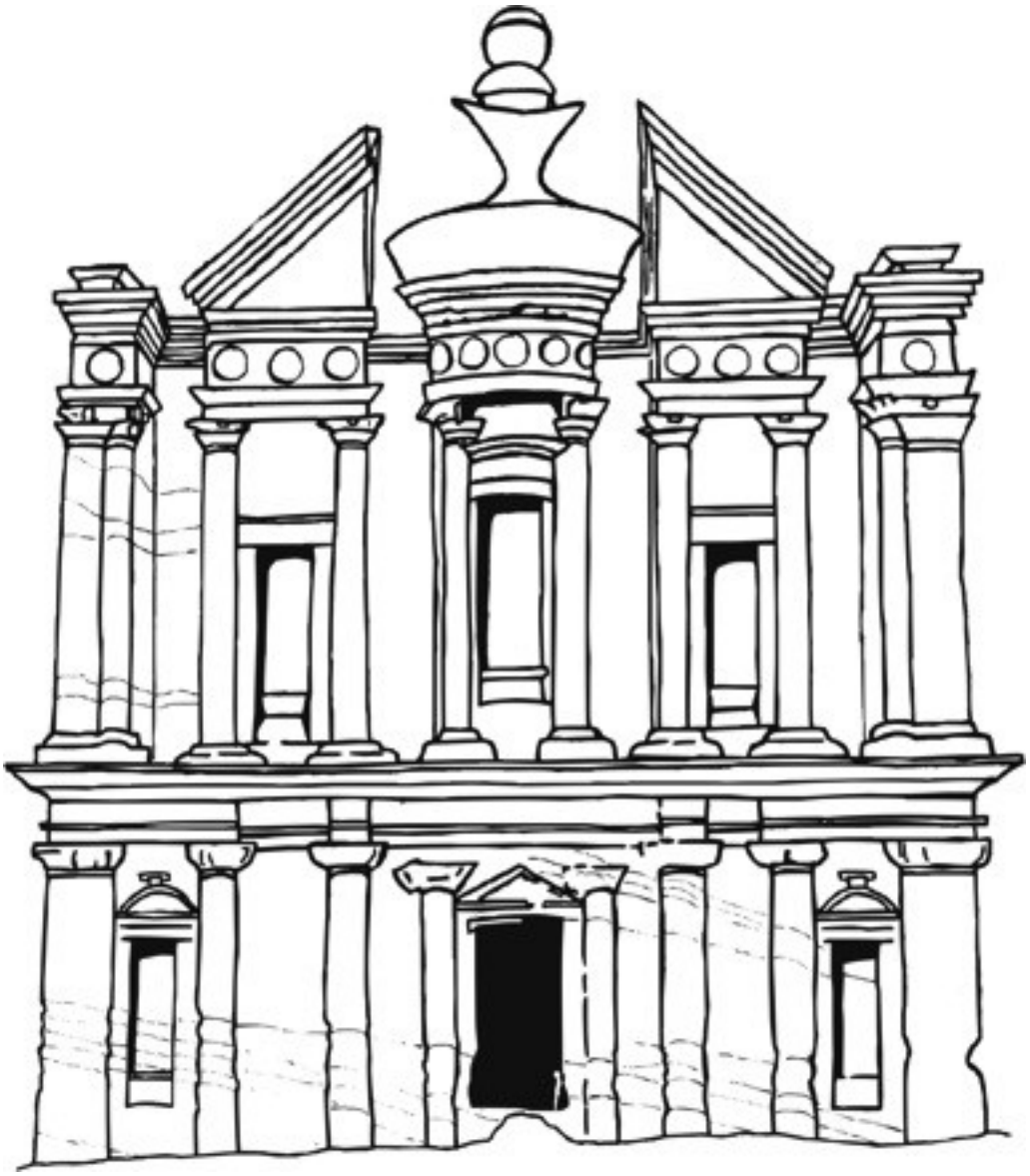
It would not be until later, towards the end of the Middle Ages, that Europeans would combine these improvements into their sea going vessels. Then, with better equipment, such as barrels for carrying water, more reliable ropes, sails, anchors, the availability of navigational charts, (first recorded in use on board European ships in 1270), and with the astrolabe for measuring the angle of the sun or a star above the horizon, the adventurous European mariners could make voyages of discovery that would mark the end of the Middle Ages and the beginning of the expansion of Europe westward across the Atlantic Ocean.

Chinese Sailing Ships

Water transport played an important role in the history of China, which had vast land areas and poor road communication systems. Starting with a dugout canoe, the Chinese joined two canoes with planking, forming a square punt, or raft. Next, the side, the bow, and the stern were built up with planking to form a large, flat-bottomed wooden box. The bow was sharpened with a wedge-shaped addition below the waterline. At the stern, instead of merely hanging a steering oar over one side as did the western ships, Chinese shipbuilders contrived a watertight box extending through the deck and bottom that allowed the steering oar or rudder to be placed on the centerline thus giving better control. The stern was built to a high, small platform at the stern deck, later called a castle in the West, so that waves from the rear could not spray into the ship. Thus, in spite of what to Western eyes seemed an ungainly figure, the Chinese boats, called *junks*, were excellent for sea travel as well as for beaching in shallow water. The principal advantage, however, not apparent from an external view, was the junk's great structural rigidity. In order to support the side and the bow planking, the Chinese used solid planked walls (bulkheads), running both longitudinally and transversely thus dividing the ship into 12 or more compartments, producing not only strength but also protection against damage

In rigging, the Chinese junk was far ahead of Western ships, with sails made of narrow panels, each tied to a sheet (line) at each end so that the force of the wind could be taken in many lines rather than on the mast alone. In addition, the sail could be hauled about to permit the ship to sail somewhat into the wind.

Once the Chinese had sea-going junks, they readily sailed throughout the islands of the Far East doing trade. Evidence is now being uncovered that demonstrates that the Chinese reached India during the time of the Roman Empire. It is now accepted that the port of Palk Bay at the northern tip of Sri Lanka was the meeting place where Chinese boats would unload their cargoes and Arab traders would buy them for transport back to Arabia.



The Deir, or Monastery is the largest monument in Petra.

Egyptian Ships

Since water navigation down the Nile was the principal means of transport for Egypt, the Egyptians also built a whole range of practical boats, well adapted to different uses and geography and climate.

Egyptian ships varied enormously in size. Some of them were huge. The Greek historian Diodorus mentions one, made of cedar, which measured about 450 feet in length. Another boat, this time a military vessel, built on the orders of Ptolemy Philopater, was of the same length, but was 75 feet wide and 100 feet high. According to Diodorus, it could carry four hundred sailors, four thousand oarsmen, and three thousand soldiers. This certainly seems a heavy load, besides which the passengers must have been very cramped!

There were some very large freighters as well. These were used for transporting

grain, stone, bricks, and even the gigantic obelisks, which were hewn out of a single block in the quarries of Aswan, and then carried on the river to the site of the temple, where they were triumphantly erected. A single statue of 1,000 tons was quarried in Aswan, transported several miles from the quarry to the river, lifted onto a boat, and ferried for one hundred and fifty miles, off-loaded, transported several miles to the temple, and finally erected onsite.

Egypt had a strong and formidable navy to protect its shores and its trade routes on the Mediterranean and Red Sea. The sailors of the Royal Navy's *King's Ships'* were specially trained for the sea. Herodotus and Diodorus both mentioned these ships of war, which were fitted out by Sesostris on the Red Sea. There were four hundred King's Ships altogether, although most of these were on the Nile and along the Mediterranean coast.

As such, trade, and the means of protecting it by ships of war, existed in Egypt, at least as early as the 12th Dynasty, or about two thousand years B.C. These commercial and naval ships were served from several ports, guiding landmarks, water markers, and loading and unloading facilities. Several roads, along with supply stations were provided between the seaports and the populated centers along the Nile.

It was these '*King's Ships*' that the Nabataeans challenged and eventually defeated, so that they could monopolize the sea-going trade on the Red Sea and beyond to Asia. The ancient historians seem to indicate that the Egyptian and Roman Navies sailed only in the Red Sea and not beyond. It was the Arab traders, it seems, who traded with India and China during the first one hundred years BC and AD, not the Romans, Greeks, or Egyptians.

The Roman Navy

The Roman Navy has a different story than the Egyptians. Since the earliest times, the Romans had not been known as great seafarers. This they left to the intrepid Phoenicians, Greeks, and later, the Carthaginians. The Romans preferred to fight all of their battles on land, being much more comfortable on solid ground. Over time, however, they learned that their navy must play a vital, if not overly glamorous, role in keeping the Empire safe from various external forces. Their navy saved the Romans during the Punic Wars, brought final victory to Octavian, who would go on to become the first Emperor of Rome, and allowed the Romans to call the Mediterranean '*Mare Nostrum*' or '*Our Sea*,' by eventually keeping it free of piracy (including the Nabataeans).

The Romans always maintained a dislike for the sea, yet they remained dependent on it for trade and commerce, and thus were forced into keeping a strong hold on it by keeping up a strong navy.

Chiefly from the accounts of the Greek historian Polybius, we learn that the Roman Senate ordered the construction of 120 warships during the first Punic War (3rd century BC). This was not the beginning of the Roman navy, as small contingents recruited from Magna Graecia had provided a flotilla of small, second-class ships from around 282 BC. It did, however, mark the emergence of Rome as a naval power in the Mediterranean.

The 120 ships were made up of two classes, as Polybius tells us, 20 triremes, and 100 quinqueremes. The former was of the same basic design that had been in use by the Greeks for 500 years, with three levels of oars on each side, the top level containing 31 oars, rowed by one man each and the other two levels containing 27 each.

The second type of ship, the quinquereme, was a new type of ship that would make

up the majority of the fleets on both sides of the three Punic Wars. These quinqueremes or "fives," (Lat. *penteres*) represented a major advance over the trireme. Dionysius I, a tyrant of Syracuse in Sicily, is credited with the quinqueremes invention along with that of the oar system that made it possible. Previously, as in triremes, each oar was rowed by one man. Dionysius conceived oars rowed by two or more men. This allowed the construction of "fours," "fives," and higher rated ships, although the maximum workable number of oar levels was three. A quinquereme could have three levels of oars, the top two possessing oars rowed by two men each, and the bottom by one. Alternatively, it could have two levels, the top rowed by three men to an oar, the bottom by two. A third option was a single level of oars, each oar worked by five men. It is this third arrangement that benefited the Romans. Each individual oar on the galley had to be worked by at least one trained rower, so that it did not foul the other oars. In this way, the Romans could place four untrained slaves beside one experienced slave and still get reasonable performance.

The standard tactic of the day was ramming the opponent to put a hole in his side with the bronze encased ram on the prow of every warship. This required a great deal of skill, as the window for a successful ram attack was in the area of eight seconds, and that only if the crew was skilled enough to make last-second corrections, as a vessel arriving early was in danger of being itself rammed by its prey. A second option was to make as if to ram, and then turn away, attempting to shear off the enemy vessel's oars, immobilizing it.

The Romans found, in the course of their first skirmishes with the Carthaginians in the first Punic War, that they lacked the seamanship and necessary skill to outperform the Carthaginians. However, someone in the Roman camp, perhaps from the seafarers of Magna Graecia, came up with a solution that would allow the Romans to benefit from their experience with land warfare. This was the "*crow*" or "r*aven*," (Latin *corvus,*) a 35 foot long bridge mounted on a swivel so that it could be turned and dropped on an adjacent enemy vessel. A large spike at the end of the corvus bit into the other ship, locking the two craft together. Then the Roman marines, who were in a larger proportion to the crew than on Carthaginian ships, would storm across and engage the enemy crew, usually resulting in a Roman victory.

In naval battles, sails were usually taken down, to improve maneuverability and also to reduce the risk of the mast snapping from the impact of ramming. With favorable winds, sometimes the skillful Carthaginians, who fought under full sail, could race by the slower Roman ships and break their blockades of certain ports.

In 247 BC, the Roman treasury was exhausted, so private citizens covered the expenses of 200 new quinqueremes. These were not equipped with the corvus, which was never used again.

The South Arabian Merchant Ships

According to Agatharchides (130 BC), the Sabaeans of southern Arabia (Yemen) made use of rafts and leather boats to transport goods from Ethiopia to Arabia (Photius, *Bibliotheque* VII). Agatharchides also tells us that the Minaeans, Gerrheans, and others would unload their cargoes at an island off the coast so that Nabataean boats could collect it. In other words, he suggests that although the Sabaeans themselves may have confined their maritime activities to crossing the Red Sea, the Nabataeans in the north had already

taken to maritime transport by the second century BC. (Agatharchides 87, and cited by Diodorus *Siculus Bibliotheca* III 42:5 and by Artemidorus in *Strabo Geography* xvi, 4:18, as well as Patricia Crone in her book *Mecca Trade, Spices of Araby, Classical Spice Trade*, Page 23)

The island in question was probably Tiran (Woelk, *Agatharchedes* p 212). The Nabataeans would have transferred the goods from the Sabaean rafts and leather boats to their own wooden Dhows.

The Nabataean (Arab) Navy

As far as I know, there are few, if any records of the Nabataean navy, either military or merchant. We do, however, have good information about dhows, as many are still in use to this day.

Long before the Europeans switched to using lateen type sails rather than using rowing galleys, the Arabs became masters of sailing. They had within their grasp, knowledge of astronomy and equinoxes. They were familiar with the fixed rudder, compasses, and the use of triangular sails that could tack with the wind.

Their smaller ships were far more agile and much faster than the Roman or Egyptian rowing galleys. As long as the wind blew, they were masters of the sea. When the wind stopped, however, the rowing galleys could easily catch them and ram them. Diodorus tells us that Egyptian or Greek quadriremes were responsible for sinking several Nabataean pirate ships on the Red Sea.

However, by the time Cleopatra and Mark Antony tried to make their escape to India, the Nabataeans had gained control of the Red Sea. The Egyptian navy was engaged and sixty Egyptian ships were destroyed. (Josephus) After this, the Nabataeans enjoyed a monopoly on sea trade until 106 AD when the Romans annexed them. From this point on, it appears that Roman ships also began to sail the Red Sea, but as far as we know, few of them were used for trade with India and China. This was usually done by Arab private enterprises, as we will discover later in this book. In my forthcoming book I explain in detail how the ancient world all considered the Nabataeans to be Arabs, and the Arabs to be Nabataeans. For example, Josephus calls Aretas the *king of the Arabs*. I also have a series of papers that examine the maritime advancements of the various Arab groups in the first two centuries BC, pointing out that from all of the Arab groups of that time, it was only the Nabataeans who had the nautical ability to sail to India and Ceylon. So from this point on I sometimes use the word Nabataean and Arab interchangeably when referring to Arab seafaring ability. It is my belief that Oman, Yemen and other Arab groups only gained significant nautical ability in the second and third centuries AD when the Nabataean monopoly on eastern trade was slowly lost.

Early Ports of Call for the Arabs

Kerala, India is first mentioned (as Keralaputra) in a 3rd-century-BC rock inscription left by the Mauryan emperor Ashoka. In the first centuries AD this region became famous among the Arabs, Greeks, and Romans for its spices (especially pepper). During the first five centuries AD, the region was a part of Tamilakam and thus was sometimes partially controlled by the eastern Pandya and Cola (Chola) dynasties, as well as by the Ceras (Cheras). All during this time Arab traders plied the coast, purchasing spices. In the 1st century AD, Jewish immigrants arrived, and Syrian Orthodox Christians believe that

St. Thomas the Apostle visited Kerala in the same century.

Konkan, India, also called Aparanta, is the name for the coastal plain of western India, lying between the Arabian Sea (west) and the Western Ghats (east). The plain stretches approximately 530 kilometers (330 miles) from the Daman Ganga River north of Mumbai (Bombay) to the Terekhol River, and includes the city. The ports of the Konkan were known to the ancient Arab traders. The spice trade brought prosperity to the ancient Hindu kingdoms of the area. The cave temples of Elephanta Island and Kanheri bear testimony to the prosperous culture of this era. With the advent of the Portuguese (16th century) and British merchant marines (18th century), the port cities were further developed and fortified. Today these ports have lost their importance and are used only by coastal shipping and Arab Dhows transporting agricultural products to the Gulf coast.

The *Gandhara region* of India was a crossroads of cultural influences for many centuries. During the reign of the Indian emperor Ashoka (3rd century BC), the region became the scene of intensive Buddhist missionary activity; and later in the 1st century AD, rulers of the Kushan Empire, which included Gandhara, maintained contacts with Rome. In its interpretation of Buddhist legends, the Gandhara School incorporated many motifs and techniques from classical Roman and Greek art, including vine scrolls, cherubs bearing garlands, tritons, and Greek centaurs. The basic iconography, however, remained Indian.

Large hoards of Roman coins substantiate other evidence. These coins are mainly of the emperors Augustus (ruled 27 BC-AD14), Tiberius (ruled 14-37), and Nero (ruled 54-68). Their frequency suggests that the Romans paid for trade goods in gold coins. Many are over-struck with a bar, which may indicate that they were used as bullion in India. Interestingly enough, Pliny complained that the Indian luxury trade was depleting the Roman treasury. Roman coins in India are found most often in trading centers or near the sources of semiprecious stones, especially quartz and beryl. Cankam literature attests the prosperity of Yavana merchants trading in towns such as Kaveripattinam (in the Kaveri delta). The Periplus lists the major exports of India as pepper, precious stones, pearls, tortoise shells, ivory, spikenard and malabathrum (aromatic plants), silk and other textiles. For these, the Romans traded glass, copper, tin, lead, realgar (a red pigment), orpiment (a gold pigment), antimony, and wine, or else they paid in gold coins.

Maluku, Indonesia, is an island province in eastern Indonesia, which is known in English as the Moluccas. It comprises about 1,000 islands, which almost encircle the Banda Sea. The islands are bounded by the Pacific Ocean on the north, the Molucca Sea on the west, the Timor Sea on the south, and the Ceram Sea on the east. Commonly referred to as the Spice Islands by the early Indian, Chinese and Arab traders, the Moluccas later formed part of the Javanese Majapahit Empire and the Shrivijaya Empire Sumatra). These islands were sources of rice, sago, coconut, spices (including cloves and nutmeg), resin, ironwood, rattan, timber, and tortoise shells.

Canton, China was annexed in 111 BC by the Han dynasty and for the next 300 years they assimilated the native Y'eh people, and integrated the region into the Han Empire. From the turn of the millennium until the founding of the T'ang dynasty in AD 618, Canton was controlled by Chinese regimes based in Nanjing. During this period, the city grew in wealth and population; Buddhist temples were erected, and a flourishing community was maintained by Arab and Hindu traders. By the time Marco Polo arrived in the late 1200's, Canton, known to Polo as Zaitun, was one of the world's greatest ports

with more than 100,000 Arab traders living in the area. As early as 130 BC Petra seems to appear in Chinese records, and then around the end of the first century AD the entire region is described by the Chinese historian Hau Han Shu in his account of the *Western Regions.*

The Persian Gulf. It is also interesting to notice that two elaborate rock-cut tombs on Kharg Island in the Persian Gulf have been found. Some archeologists have noticed a likeness to Palmyrene hypogea, but Kaerink and Whitehouse, both archeologists, point out that this is probably not so. Since the tombs have a vestibule, main chamber, and numerous chambers, they could easily have been Nabataean in origin, although they do not bear all the characteristics of Nabataean tombs.

Nabataean Sea Trade

No one knows when the Nabataeans first sailed from the coasts of Arabia across the Indian Ocean, but by the time the Roman army overran Alexandria, that city was the richest city on the Mediterranean, flush with goods brought to Egypt by Arab and Nabataean boats. Most civilizations would have boasted of their accomplishments, but the Nabataeans however, tried to keep their sources secret. They invented stories of winged animals that had to be subdued and terrible conditions that had to be endured in order to obtain their products. All of this was designed to discourage others from discovering the true source of their products. Most of the people living in Egypt and Europe, during the time of the Nabataeans, thought that the source of their goods was southern Arabia, and that these locations could only be reached by long, arduous journeys across waterless deserts.

However, history now shows us that Arabians were making direct sailing journeys to the Orient before the Christian era. In the Far East, the Chinese were moving through the waters of the Malay Archipelago and trading in the Spice Islands (the Moluccas or the East Indies generally) and Ceylon was soon developed as a central trading point for the Arabs and Chinese.

From there, many goods were being moved back to Arabia. Some of the ships from Asia docked in the south of Arabia, where caravans moved the goods across the desert. It also seems that many Arab ships sailed directly to Leuce Come, a Nabataean port at the bottom of the Gulf of Aqaba, as well as Aila (Aqaba itself) and other ports on the African side of the Red Sea, where camel caravans carried the goods the rest of the way into Egypt. Then from the port in Alexandria, boats carried these goods on the final leg of the journey to Rome. Along with their cargos, the camel caravan owners, sailors, and shipmasters brought stories of how difficult it was to obtain these goods. Perhaps the merchants themselves believed the stories as they had heard them from those who delivered the goods to them. The justifying fact, however, must have been that these goods matched the same prices as the goods that were carried overland, through the long and treacherous land route known as the Silk Road.

It is interesting to notice how many Nabataean cities developed along the caravan routes between Aila and Gaza. From the extensive ruins of these caravan stops, one can deduce that a tremendous amount of trade moved between these two ports, as well as along the routes north of Aila towards the Decapolis and Damascus.

When comparing the caravan stopping places on the route south of Aila down to southern Arabia, a stark difference appears. In Arabia the caravan stopping places are

much smaller, and the only city of any size that developed was Meda'in Saleh, located at the crossroads of the caravan routes of Arabia. Obviously, the Nabataean seaports of Leuce Come and Aila handled the bulk of Nabataean trade on the eastern side of the Negev.

The city of Alexandria handsomely profited from Nabataean trade. The revenues reported from the port of Alexandria were already enormous when Ptolemy XI bequeathed the city to the Romans in 80 BC. Under the Romans, Alexandria became one of the greatest commercial centers of the Roman world and the center for the aromatic and pungent spices of India that found their way to the markets of the Roman Empire.

It is also evident that Nabataean merchants sailed to all the major seaports on the Mediterranean. For example, Nelson Glueck mentions that a Graeco-Nabataean inscription was discovered on the island of Rhodes, and it has now been confirmed that a Nabataean community and temple existed at the Roman port of Puteoli, a few miles outside of Naples, Italy. (See www.nabataea.net for more details on these and other Nabataean locations).

Once the Romans annexed the Nabataean Empire in 106 AD, the way was open for the Romans to begin sea trade on the Red Sea and beyond. The Romans built a large highway The Via Nova Traiana), extending from the Nabataean city of Bostra in the north to the port city of Aila in the south. The Romans however, never built the roadway any farther south. Apparently, the seaport of Aila and the Egyptian port of Berenike were sufficient to provide the Arabian and Asian resources that the empire demanded. It seems, however, that some of the Nabataean sailors at this time, moved their base south to the port of Mouza, on the Red Sea, (present day Yemen), and also to Cane in southern Arabia. From these ports, Arab sailors continued to sail to Africa, India, and Asia.

From this point on, Roman trade with India was extensive for more than three centuries, although several historians make a point of mentioning that it was Arab boats, not Roman boats that did the majority of trading with India and beyond. Roman boats were totally unsuited for the strong cross winds of the Red Sea, and it was only when the Romans adopted the Arab triangular sail (later known as the Lateen sail) that Roman boats could successfully navigate where Arab boats has freely gone before. In time, Roman trade swelled and lasted until the 6th century. Arabian trade with India, however, continued to develop even through the Middle Ages.

Chapter Six

The Incense Trade

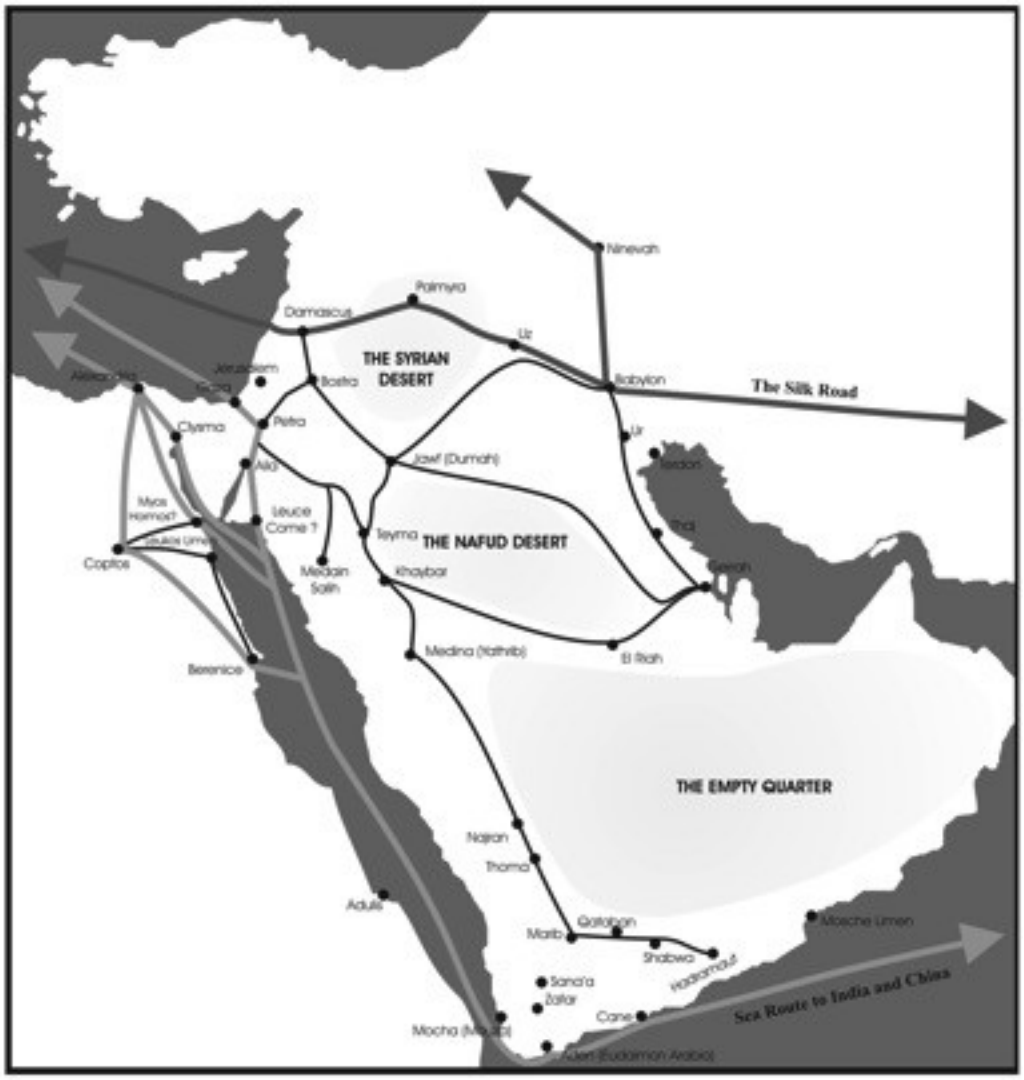
Far East Trade Routes

For thousands of years trade routes existed between the Middle East and Asia. Long before Marco Polo made his historic journey to China, Arab and Chinese traders moved thousands of tons of goods each year from the Far East to the Middle East and on into Europe. This trade expanded when the civilizations of Europe had money to spend, and contracted when the civilizations of Europe no longer had extra money for eastern luxuries.

So it is no surprise to discover that during the height of the Egyptian, Greek and Roman empires, Arab trade to these kingdoms was in full swing. It grew during the Byzantine Empire and even continued during the Middle Ages, for during this period, the Arab world was at its zenith and far in advance of Europe. Later when Portugal and Spain expanded their empires, Arab traders continued to trade, as these countries were now flush with gold and silver from the new world, and their desire for Asian goods far outstripped what their own fleets could provide them. So whether they sold to Europe or their own civilizations, the Arabs of the Middle East were the masters of trade from Asia right up until the time when Europe developed a world class merchant navy.

Against this background, comes the amazing fact that for over four hundred years the Nabataeans managed to monopolize much of the trade between Rome and the Far East. Not only did they monopolize the trade, they also managed, as their predecessors did, to keep the sources of their goods secret. By doing this they were the sole suppliers of many of the goods that the Romans, flush with the riches of conquest, desired.

Getting control of the incense and spice trade required a great deal of skill. For centuries, the Nabataeans had been building secret water collecting systems and secret cisterns for storing water in the desert. These originally began as a source of protection. When challenged, the Nabataeans simply retreated into the desert. After time, however, the Nabataean settlements in the various parts of the Middle East grew more connected, and these water collection systems became the backbone of the Nabataean trade routes. This enabled them to move goods across the desert without relying on traditional water wells as these wells were controlled by and fought over by the Bedouin tribes in the desert.



Trade Routes in Ancient Arabia

In time, the Nabataeans grew wealthy and powerful. They trained their men in military skills, and began dealing with the thieves and robbers that preyed on their trade. Also, using their small merchant ships, they pirated, pillaged, and eventually dominated trade on the high seas, even defeating the Egyptian navy, until they totally controlled the seagoing trade between the nations of the Far East and the civilizations of Europe.

Once they gained a monopoly of much of the eastern trade, the Nabataeans began to gently squeeze the Romans for higher and higher prices. The Romans, now used to eastern luxuries, paid up. As the price rose, the Romans became worried. Their whole kingdom was dependent on the Nabataeans for the supply of incense. Incense was a necessity as it was burned in the thousands upon thousands of temples that the Romans used to worship their pantheon of gods.

Ancient manuscripts, however, make it plain that the Nabataeans were involved in far more than only transporting incense. Egypt also desired goods. Tin was imported into Egypt from Asia and/or Europe. Lapis Lazuli from Afghanistan was also imported, as was the natural volcanic glass, obsidian, from Abyssinian origin. Some items such as rare

plants were imported from Africa and the Far East, which were used to manufacture the widely acclaimed Egyptian medicine.

Over the centuries, the Greeks also bought many items from the Arab traders. Greek perfumes and cosmetics have long since evaporated or turned to dust, leaving behind only written references to their importance and the containers that once held them. From Homer's day forward, precious oils, perfumes, cosmetic powders, eye shadows, skin glosses and paints, beauty unguents, and even hair dyes seem to have been in near universal use among the Greeks. Cosmetic unguents from the east were imported into Greece in containers carved from the Red Sea Tridacna shell.

The Romans, like the civilizations before them, were also reliant on the Arab traders for a variety of their goods. Arab ships regularly left Red Sea ports such as Berenike in Egypt and Aila in Nabataea, bound for Indian cities. They sailed with cargoes of gold, henna, storax, frankincense, asbestos, cloth, silk gauze, silk damask, glass, and silver. Nabataean sailors never revealed the sources of their goods, and the secret of monsoon winds was closely held by their navigators. Their ships returned with cargoes of aromatic resins and spices, elephant ivory, tortoise and pearl-oyster shells, and raw silk.

Years later, in the 13th, 14th and 15th centuries, Mamluke merchants in Egypt landed Chinese and Iranian ceramics in medieval Quseir on the Red Sea. Then the Turks began sailing the western Indian Ocean in the 16th century, and at Jeddah, luxury goods from the East were traded for silver from Spain's American colonies that had passed into the hands of Ottoman merchants. As you can see, for centuries Middle Eastern merchants controlled much of the trade between the East and the West, right up until just after the discovery of the Americas in 1492.

Trade on the Red Sea

Along with trade from the Far East, there was a certain amount of trade taking place in the Red Sea itself. Yemen produced frankincense and coffee. They traded these goods for necessities and also for luxuries like Chinese porcelain, fabrics and spices brought by ship to their ports.

The Jewish communities in Sana'a, the capital city of Yemen, made a date-based liquor that they sold abroad. Ports along the desert, like that of Jeddah, imported wheat, iron, oil, lentils, and beans

The Incense Trade

For thousands of years, incense has been burned in the Middle East. Over time, it made its way to the Egyptian, Greek, and Roman temples of Europe where it became part of pagan worship ceremonies. As southern and western Europe was literally dotted with temples dedicated to pantheons of gods, tons of incense were required to keep temple worship going. Consequently, incense was in great demand and a smart merchant with a supply of incense could make a fortune for himself.

No one knows when incense first became popular in Europe's temples, but it was possibly during Alexander the Great's conquest of the Middle East and Persia. As the Greek Empire was breaking into smaller pieces, the Nabataean Kingdom was rising to prominence, and stepping into the power vacuum left by Alexander and his feuding generals. As the Roman Empire followed on the heels of the Greeks, Nabataean economic power surged. Suddenly their trade in rare and exotic spices, incenses, and

goods from the Far East came into high demand.

Incense was not only burned before altars, it was also used as a deodorant. Even today in some parts of the Middle East, incense is still used as a deodorant. When men or women congregate for an occasion, incense is often placed in a mabkharah, or handheld charcoal brazier. Each man then opens his jacket and censes his shirt and underarms, then his face and his headscarf. The mabkharah is always passed counter-clockwise and each man wafts smoke onto himself while saying a blessing.

Incense was also used for embalming. Embalming is believed to have originated among the Egyptians before 4000 BC, and was used by them for more than 30 centuries. Historic evidence demonstrates that embalming is religious in origin, conceived as a means of preparing the dead for the life after death. From the Egyptians, the practice of embalming spread to other ancient peoples, including the Assyrians, Jews, Persians, and Scythians.

Ancient embalming methods consisted of removing the brains and viscera, and filling the body cavities with a mixture of incense, balsamic herbs, and other substances. The Egyptians then immersed the body in carbonate of soda, injected the arteries and veins with balsams, filled the cavities of the torso with bituminous and aromatic substances combined with salt, and finally wound cloths saturated with similar materials around the body. The Assyrians used honey in embalming, the Persians used wax, and the Jews used spices and aloes. Alexander the Great was embalmed with honey and wax. The Egyptians were particularly adept at embalming. For example, the soles of the feet of mummies, when unwrapped after as much as 3,000 years, are often still soft and elastic. Historians estimate that by AD 700, when the practice of embalming had died out, the Egyptians had embalmed over 730 million bodies. Although many were destroyed or disintegrated by the tropical heat of northern Africa, a large number of mummies were preserved. Archaeologists estimate that several million are still laying in undiscovered tombs and burial places.

In the Roman Empire, the bodies of state officials were often cremated. During the cremation process, vast quantities of incense were burned to mask the odor of burning flesh. This practice also put great demands upon the available supply of incense.

So, incense was in demand. Whether it was to be used for offering to the gods, deodorant, or embalming, it was highly desired and often very expensive. There were various kinds of incense, each one unique in its own way. Below we will look at four of these: frankincense, aloes, myrrh, and 'ud.

Frankincense

Frankincense was obtained from several types of oriental evergreen trees or shrubs. These trees were native to Oman, Yemen, and Somaliland.

A cut was made in the bark of these trees, and the gum resin was collected. This resin was then dried and broken up into spoon sized pieces. The odor in the gum was produced by volatile oils that diffuse a strong fragrance when burned. The hardened, semi-transparent yellowish material is still used widely as ceremonial incense today. In Medieval Europe frankincense oil was thought of as a drug, and used to cleanse wounds. A refinement of frankincense was made into a gummy substance that was used to dress wounds.

Myrrh

From ancient times, the aromatic gum resin, myrrh, was extracted from a tree in Africa and Arabia, much the same way that frankincense was extracted. Then a mixture of resin, gum, and the essential oil myrrhol, was mixed to produce what was commonly known as myrrh. It had a bitter, pungent taste, and ranged in color from yellowish brown to reddish brown. It was highly valued in ancient times as an ingredient of perfume and incense, and was also used as an ointment. A similar product, known as Balm of Gilead or Mecca Myrrh, was obtained from a specific type of myrrh tree.

Myrrh is mentioned in the Bible (Psalm 45:8; Song of Solomon 4:14) and is believed to have been a mixture of myrrh and the oleoresin labdanum. One of the three gifts the Magi brought to Jesus Christ (Matthew 2:11) was myrrh. Myrrh gum resin was also used as a stimulant tonic and is even used today as an antiseptic in mouthwashes as well as to treat sore gums and teeth.

The Greek physician Hippocrates prescribed myrrh for sores and the Romans used it to treat worm infestation, coughs, and certain infections. Up to 3000 tons of frankincense and myrrh were transported each year during the height of Nabataean trade.

Aloes

The drug, bitter aloes, is obtained from the sap of the Aloe tree or shrub. There are more than 150 known species, most native to South Africa. Several species grow in Yemen and Oman, and these are thought to be the source of ancient aloes, which are often mentioned in the Bible. The bush has sword-shaped leaves which are tough, fleshy and often waxy and toothed. Today several species of aloes are commercially important as the source of the bitter-tasting aloes used in medicine.

Aloes are mentioned in several places in the Bible, and as far back as the 10th century B.C. when King Solomon began trade with the south Arabian Sabaean kingdom. Not all scholars agree but some believe that the aloes mentioned in the Bible are really 'ud, one of the lesser known incenses.

'ud

'Ud (pronounced 'ood, possibly the root of our word “wood.”) is an aromatic resin deposit found in certain species of Aquilaria trees. These trees are found only in the jungle of the Far East, such as Borneo, Vietnam and Cambodia. 'Ud resin is produced by the tree as an immune response to a fungus that invades the tree, and over many years, spreads through it.

For thousands of years 'ud has made its way from the jungles of the east to the deserts of Arabia and beyond. When the fungus takes over much of the tree, it can then be harvested. Often the tree simply has patches of dark fungus, which are called gaharu by the jungle tribes. It smells like cedar and sandalwood with subtle notes of roses and balsam.

Once 'ud reaches the markets of the Middle East it is sold as incense. Today the price can vary from $5 a gram to as high as $20 a gram. Oil can also be extracted from 'ud that retails for at least $25 per gram and sometimes higher, depending on its quality.

In the Middle East today, 'ud is sometimes added to tobacco and smoked in a water pipe. 'Ud is also burned in the Great Mosque in Saudi Arabia, and pilgrims to Mecca often take packages of 'ud home with them as souvenirs.

'Ud is usually considered a man's scent, but women sometimes use it at special get-

togethers like weddings or the birth of a child. They pass around a smoldering incense burner so the guests can perfume themselves with 'ud incense. If you walk past a woman on the street and you smell 'ud you know that she is from a good family. It is a sign of wealth, good breeding, refinement, and status.

The historians of China, Friedrich Hirth and W.W. Rockhill, claim that the aloe mentioned in the Bible really was 'ud and that as far back as the 10th century BC it was traded with the Middle East. Since large volume trade was unknown at this early stage, the price of 'ud must have been astronomical. It wasn't until the coming of Nabataean, and the later Arab traders that larger volumes of 'ud reached the markets of Alexandria and Rome.

Today there are shops in the Middle East that specialize in selling 'ud. One dealer has a chain of 22 shops throughout the Middle East that sell 'ud oils called Dahnal Oudh al-Moattaq. The price is around $900 for a 30 gram bottle.

Nabataean Profits

The incense trade formed the backbone of Nabataean commerce. They moved thousands of tons of incense each year by ship and camel caravan. The Nabataeans managed to buy their incense cheaply and sell it for exorbitant prices. Consequently, income from the incense trade kept the Nabataean coffers full. Incense, however, was only a small part of the overall trade picture.

Chapter Seven

The Spice Trade

No one knows when Arab traders first arrived in China, or when Chinese traders first traveled directly to Arabia. There are several events in history that indicate this trade was established either during the time of the Nabataeans or much earlier when Chinese and Arab traders met in Palk Bay on the northern tip of Ceylon.

It is known, however, that by 300 AD, Arab and Persian traders had established settlements on the outskirts of Canton, China. I would assume that Arabs and Persians would only establish colonies after many years of trading. One would not move women and children off to China without having first established firm relations and without a long history of stable trade. If this is true, then it clearly points to active direct trade with China taking place during the Nabataean era.

It is also interesting to note that an early Chinese traveler named Fa-Hien noted the riches of the Arab traders who dealt in 'ud. These Arab merchants had set up their base in Ceylon (Sri Lanka) where they lived very comfortably.

The Greek geographer, Cosmas Indicopleustes, writing much later in the 6th century AD, mentions the China-Ceylon-Middle East trade routes, which he noted included large shipments of 'ud. Several centuries later, Zayd ibn Hassan of Siraf, Iran, records in his book *Silsilat al-Tawarkh* (Chain of Chronicles) the experiences of two ninth-century AD traders, one Ibn Wahab of Basra and the other named Suleiman. Although they traveled at slightly different times, both reported that the price and availability of 'ud in both Basra and Baghdad was much affected by frequent shipwrecks and pirate attacks on trading ships. A round trip took two years, as ships had to wait for the right winds so they could sail, plus they had to deal with the customs, formalities and complexities of doing business in China.

Did the Nabataeans reach China? One telling event is that in the Silk City of Tseng, in China, there is mention of Rekem in ancient records. As I mentioned earlier, Rekem was the name the Nabataeans gave to their capital city. It was only when the Romans annexed the Nabataean kingdom that they began calling the city by the Latin name: Petra. This indicates that the Nabataeans were in contact with the Chinese well before 106 AD, and most likely a century before the birth of Christ.

The Chinese were active in marine trade at various times in their history. During the Han Dynasty (206 BC - 220 AD), imperial Chinese perfume blenders used 'ud along with cloves, musk, costus-root oil, and camphor to make Chinese perfume. Since 'ud originated in the jungles of Borneo, the Chinese must have been active in trade with these islands.

It is also interesting to note the linguistic tie between China and India. Both the Chinese and Indian words for 'ud means “the incense that sinks in water.“ This is because a 'water test' is used to determine the quality of the incense. High quality incense is heavy and sinks; low quality floats.

Spices

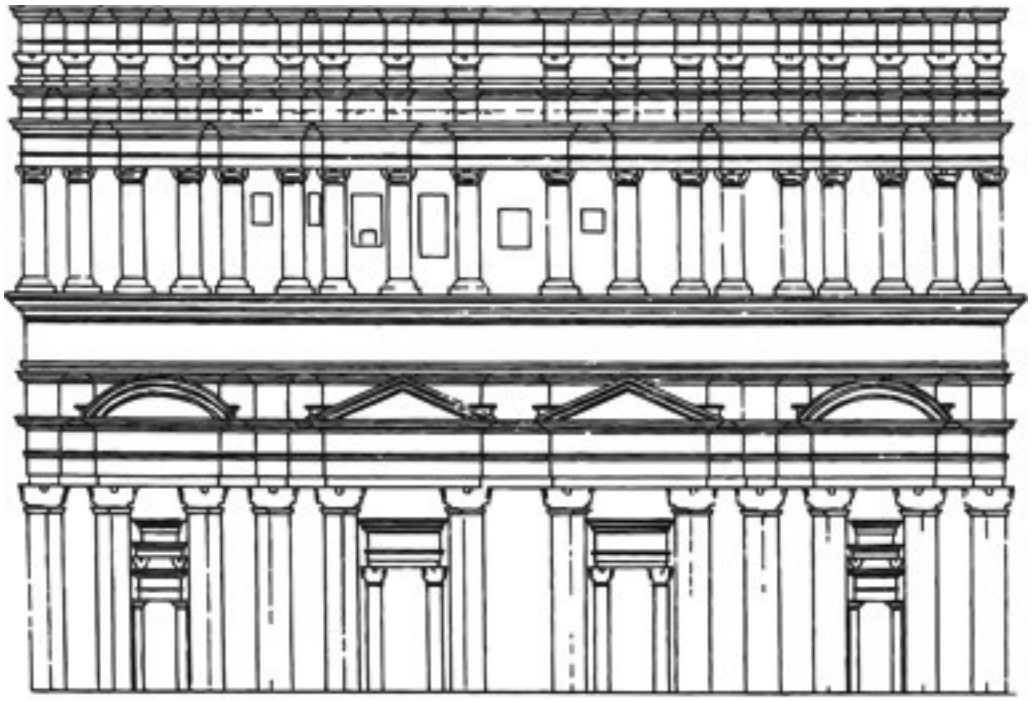
From very early times, great value was put on spices. This is best reflected by the lucrative trade in cinnamon, cassia (senna), and black pepper that began before 1000 BC

in the Middle East.

For many centuries coastal trade with India was based from Arab ports along the coasts of Oman and Bahrain. From these ports, spices were gathered in the famed cities of Ubar and Gerrha. Arab merchants controlled the overland trade routes from these cities to Egypt and Syria. With the arrival of the Nabataeans, sea routes from Egypt were established and much of this trade moved to southern Arabian ports and the port of Aila (present day Aqaba).

From Aila, goods were carried overland to Alexandria, in Egypt, which soon became a commercial center. From the 13th to the 15th century, Venice monopolized the spice trade with the Middle East. Venice demanded such exorbitant prices, however, that Portugal and Spain looked eastward for routes to the Spice Islands around the Cape of Good Hope, and then, with the voyages of Christopher Columbus, searched westward. Although many of the early explorers set out to find gold, these expeditions gained much of their financial backing from trade in spices.

One of the greatest ancient sources of information on shipping between India to Rome comes to us in the form of a book, known as *The Periplus of the Erythraean Sea*. This book lists the ports of call and the goods that were traded in each port along the Red Sea, the east coast of Africa, the south Arabian coast, and the western ports of India. The Periplus mentions that the king in Petra was Malichus, and thus the book can be dated to around 40 - 70 AD. Along with this, from ancient cook books, such as the Marcus Gavius Apicius: De Re Coquinaria, it is possible to discover what some of the more popular Roman cooking spices were, and how they were used. In the paragraphs below, I examine some of the cargoes that the spice ships and caravans carried from the Far East.



A reconstruction of the Palace Tomb in Petra

Indian Pepper

Pepper is the world's most important spice today. It is prepared from peppercorn, the

fruit of the pepper plant. This plant is a climbing vine native to India and widely cultivated in the hot, moist areas of tropical Asia. The vine has long, slender spikes of minute flowers and small hard fruits.

Peppercorns that are harvested when they are green and immature and then allowed to dry yield black pepper. To produce white pepper, ripe peppercorns, which are red, are soaked in water and their outer covering is rubbed off.

Pepper is one of the oldest known spices and has been in use for at least 3000 years. During Roman times, pepper was only available to the upper class, which valued peppercorns almost as much as gold. When the Goths overran Rome in 410 AD, their leader, Alaric the Visigoth, demanded an initial tribute of 3000 pounds of peppercorns plus annual tributes of 300 pounds, along with gold, jewels, and silk, in order to spare their lives.

Today pepper is so common that most people fail to consider it an exotic spice. However, thanks to the diligent work of Arab merchants over the centuries, Europeans developed a taste for this spice.

Vanilla

Vanilla is produced from a climbing orchid of the family Orchidaceae. Native to tropical America and East Asia, the flowers are thick, fleshy, and fragrant but dull in color. The fruit occurs as fleshy pods, about 15 to 23 cm (6 to 9 in) long, from which commercial vanilla is extracted. Today vanilla is commercially grown in Madagascar and Tahiti. While we do not know where the Nabataeans obtained their vanilla, we do know that the spice trade included vanilla for the kitchens of Roman Europe.

Cinnamon

Cinnamon is the common name for several related trees of the laurel family, and for a spice made from the dried bark of the trees. The best-known species were native to Sri Lanka, but today it is cultivated in many other tropical countries in south-eastern Asia and elsewhere. However, the cinnamon that is grown in Sri Lanka is still superior in taste.

The cinnamon tree, which usually grows up to 12 m (40 ft) tall, is pruned so that it grows four to five stems. When the bark begins to turn brown, the stems, which may be about 2.5 meters (8 ft) tall and 5 centimeters (2 in) in diameter at the base, are harvested and new ones are trained to grow in their place. After the stems have been stripped of leaves and twigs, the inner and outer bark is removed. As the bark dries, it forms rolls known as quills. The smaller quills are then inserted into the larger. When fully dry, these are tied in bundles for shipment.

Cinnamon is yellowish-brown and has a distinctive fragrant aroma and a sweetish, pungent taste. It has been used since early times as a spice in many culinary preparations, as well as in some medicines. The aromatic qualities of cinnamon result from a volatile oil, oil of cinnamon, which may be extracted from the bark by distillation. The oil varies in color from yellow to cherry red. The yellow oil is used in scenting soap and flavoring sweets.

Arab and Nabataean traders were key players in importing cinnamon from the east to the Middle East and Europe.

Liquid Storax

This is an aromatic gum obtained by making incisions in the trunk of the storax tree (Styrax offinale), a small deciduous tree with drooping clusters of 3-6 white flowers.

Storax is native to tropical, subtropical, and warm temperate regions throughout the world and is cultivated for ornamental effect. The white flowers, arranged in drooping groups, have a five-toothed outer floral envelope, a tubular five-toothed set of petals, ten stamens, and a solitary pistil. The several-seeded fruit splits to release the seeds. The storax tree yields a gum of the same name, which is collected from cuts made in the bark.

The hardiest species of the genus Styrax, the snowbell tree, is a deciduous shrub or small tree, 9 m (30 ft) tall, native to Japan and China, and often grown as an ornamental. A species native to Borneo, Java, and the Malay Peninsula yields the important resin called benzoin, also known as gum Benjamin, which is an important component of friar's balsam.

Gum Arabic (Mistika)

Gum Arabic is a resin, which seeps from the branches of several species of the Acacia tree. This small tree or shrub is native to dry areas in Africa, from Senegal to Nigeria. The gum forms a clear, thick solution in water. When ethyl alcohol is added to a solution of Gum Arabic and water, which has been slightly acidified with hydrochloric acid, arabin is produced. This gum is harvested during the dry season, and is used as an adhesive, in the manufacturing of ink as well as candy. Arabs use this gum today to produce a number of different kinds of sweets and deserts.

Cloves

Cloves are produced from an evergreen tree (Syzygium aromaticum) that grows as high as 12 meters (40 feet.) It is native to the Moluccas area in eastern Indonesia but today it is cultivated elsewhere. The leaves of the clove tree are lance-shaped and the flowers are yellow with clusters of four petals. The trees produce a great profusion of flowers.

The leaves, flowers, and bark of the clove tree are all aromatic. The ripe fruit resembles an olive in shape but is smaller. It is dark red and is sometimes sold in a dried state, known as 'mother clove.' In this form it has an aroma and flavor similar to those of cloves, but much weaker.

The spice that most of us know as cloves is made from the flowers. The flower buds are gathered and dried by exposure to the smoke of a wood fire as well as in the rays of the sun.

Cloves are used extensively as a condiment and flavoring in many types of cooking. Oil is obtained from cloves by repeated distilling. In dentistry, this oil is used as an anesthetic and sometimes as an antiseptic. It is also used in perfumes and soaps.

Cloves were highly prized in ancient times, and must have been a welcome cargo aboard any Nabataean trading boat.

Musk

Musk is produced from the abdominal gland of the male musk deer, found in high Asian mountains. The long-lasting odor of musk has made it an important ingredient in perfumes throughout history. Musk also delays evaporation of more volatile scents in a perfume, and is used as a fixative in blends where other scents are dominant. In Asia, it is

sought as an aphrodisiac, and it is believed to be medically beneficial as a stimulant. Fresh musk is very thick and sticky but dries to a grainy powder, a tincture of which is used in perfumes. The basic oil which is the source of the odor, has been identified and called muskone. There are records of musk being used in perfume as early as 200 BC.

Ginger

Ginger is found throughout the tropics, mostly in Far Eastern countries. It has unique complicated flowers with a fertile stamen and a prominent lip. Most of us associate ginger with the knobby fat roots that are sold in supermarkets today. However, from the ginger plant we get not only the root spice, but also East Indian arrowroot, turmeric, and prized flowers. Ginger as a spice was well known to the Romans, but after the fall of Rome, much of the trade with the east was lost, and it was only after Marco Polo's trip that ginger once again found its way into the kitchens of Europe.

Nutmeg

Nutmeg is an evergreen tree that is native to the Moluccas area of east Indonesia. Today it is widely cultivated in southern Asia, the West Indies, and Brazil for its fruits, which yield two spices, and for its timber. The fruit is fleshy and yellow having a diameter of about 5 centimeters (2 inches), popularly called the nutmeg apple, which splits into two halves, thereby revealing the seed surrounded by an outer coating resembling a fleshy, reddish net. This seed is dried to form the spice popularly known as nutmeg. The fleshy reddish coat around the seed is peeled off and dried to form the spice known as mace. Nutmeg trees grow to a height of about 15 meters (50 feet).

Chapter Eight

Other Trade Items

Along with incense and spices, the Nabataeans were also merchants of many other items, including various rocks, gems, glass, and metals. Using their fleets of merchant ships and camel caravans, they transported these items to the markets of Greece, Egypt, and Rome. Below I have listed some of the things that were transported in these Arab ships.

Obsidian

Obsidian is a black volcanic glass that yields sharp blades. Obsidian is produced when molten igneous rock (magma) pushes its way up to the earth's surface. If this lava cools rapidly, it does not have time to crystallize, and obsidian forms. Obsidian is usually black, but may also be red or brown. Because it is easy to shape by flaking, it was prized since early times by peoples who used it to make weapons and tools.

All of the early civilizations of Asia Minor, North Africa, and Europe relied on the Arabian Peninsula for their supplies of obsidian. Tools from Arabian obsidian have been found in Egyptian pre-dynastic archeological sites demonstrating that this trade was in place many centuries before the Nabataeans came onto the scene. During the height of Nabataean trade, obsidian continued to be listed as a frequent cargo on boats arriving from Arabia.

Turquoise

Turquoise is an opaque, cryptocrystalline mineral, composed chiefly of hydrated aluminum phosphate that is prized throughout the world as a gemstone.

The color ranges from blue and bright blue-green to greenish-grey, according to the various amounts of copper usually present. It occurs mostly in seams of igneous rocks, as incrustations on the surface of various slates, or as nodules in red sandstone. The sky-blue variety of turquoise, commonly referred to as robin's egg, is the form most desired for jewelry.

The principal deposits of blue turquoise are located in Iran and the Sinai Peninsula. The mineral has been valued for its ornamental properties since ancient times and has been found in neckwear and bracelets recovered from old Egyptian tombs. Ancient boats have been recovered from the Red Sea carrying turquoise in their cargoes.

Lapis Lazuli

This deep blue rock has also been used since ancient times for ornamental purposes. It consists essentially of the blue mineral lazurite and contains small amounts of calcite, pyroxene, and other silicates. Small particles of pyrite give the appearance of gold specks and are usually disseminated through the blue rock.

The best-quality lapis lazuli, which contains less calcite and pyrite, comes from Afghanistan, where the mines have been worked for many thousands of years. Lapis lazuli has been used for more than 6,000 years. The death mask of the young pharaoh Tutankhamen was inlaid with stone mined in Afghanistan. It was also used for mosaics and other inlaid work, carved ornaments, vases, and jewelry, especially beads. As a gem,

it was usually cut to be smooth and rounded and could be used to make cameos. Lapis lazuli was also ground and used as blue pigment (ultramarine) until the early 19th century, when artificial ultramarine was developed.

This stone is very popular in the Middle East today and is sometimes used in the manufacture of Muslim prayer beads.

Copper

Since early times, copper has been an important element. As it is easily refined and worked, copper was in demand for the manufacture of military equipment, pots, and even as a writing material.

The presence of copper in Palestine is mentioned in the Bible, and archaeologists have identified remnants of ancient smelting operations at Timna'. This town was located on the western side of Wadi Arabah. As you will notice on a map, Wadi Arabah runs down the west side of the mountains of Petra.

The ancient mines, called Mikhrot Shelomo ha-Melekh (King Solomon's Mines). They are at the top of a mesa, about 300 meters (1,000 feet) long and more than 130 meters (425 feet) wide at its widest point. The mesa's north wall contains scenic columnar rock formations that show traces of copper to this day.

Today there are modern mines east of this site. Because of the extreme heat, especially in the summer months, the mineworkers commute to the works from Elat, 25 kilometers (15.5 miles) to the south.

As the need for copper grew, this metal became a source of foreign trade, and one that the Nabataeans did not fail to participate in. Wadi Arabah is liberally dotted with ancient copper slagheaps denoting extensive mining and working of metal, long before the appearance of the Nabataeans. The Khirbet Nahas site, which in Arabic, means '*Copper Ruin*,' was a great mining and smelting complex and located near the Nabataean center of Selah.

Bronze

Bronze is made when arsenic and/or tin is present with copper. Bronze is both stronger and more durable than copper, and so it was in greater demand. Arsenic content varied from 1 to 7 percent, with up to 3 percent tin in early bronze making. Arsenic-free copper alloys with higher tin content (in other words, true bronze) seem to have appeared between 3000 and 2500 BC, beginning in the Tigris-Euphrates delta. The discovery of the value of tin may have occurred through the use of stannite, a mixed sulfide of copper, iron, and tin, although this mineral is not as widely available as cassiterite, in which the main metal is tin. This eventually must have been the main source of the metal.

While there may have been some independent development of bronze in varying localities, it is most likely that the bronze culture spread through trade and the migration of peoples from the Middle East to Egypt, Europe, and possibly China. In many civilizations the production of copper, arsenical copper, and tin-bronze continued together for some time. The eventual disappearance of copper-arsenic alloys is difficult to explain. Production may have been based on minerals that were not widely available and became scarce, but the relative scarcity of tin minerals did not prevent a substantial trade in that metal over considerable distances. It may be that tin bronzes were eventually preferred owing to the chance of contracting arsenic poisoning from fumes produced by

the oxidation of arsenic-containing minerals. However, in the end, the use of iron replaced bronze, as iron was in much greater supply.

As the weathered copper ores in given localities were worked out, the harder sulfide ores beneath were mined and smelted. The minerals involved, such as chalcopyrite, a copper-iron sulfide, needed an oxidizing roast to remove sulfur as sulfur dioxide and yield copper oxide. This not only required greater metallurgical skill but also oxidized iron content. Improved smelting furnaces led to higher iron contents in the bronze.

As I mentioned earlier, copper and bronze formed an integral part of all early trade. As copper and ultimately bronze were mined and worked in the Middle East, products made of these metals were exported to other locations.

Tin

Tin was important in the production of bronze. Tin was also used as a soft metal. Since early times there are records of tin being imported into Egypt from Asia. So it comes as no surprise that many Arab merchants also included tin in their items of trade.

Iron

Iron technology was derived from the art of refining and working copper and bronze. The main requirement for working iron was a furnace capable of maintaining a high temperature by means of a good draft of air. The furnace had to be tall enough to allow the iron to drop from the smelting zone and form a lump usually called a bloom.

After aluminum, iron is the most abundant metal on earth, constituting about 5 percent of the earth's crust. Copper was always in short supply, as it makes up only 0.01 percent of the earth's crust, but iron ore suitable for simple smelting was widely distributed in the form of surface deposits that could be scraped up without elaborate mining procedures.

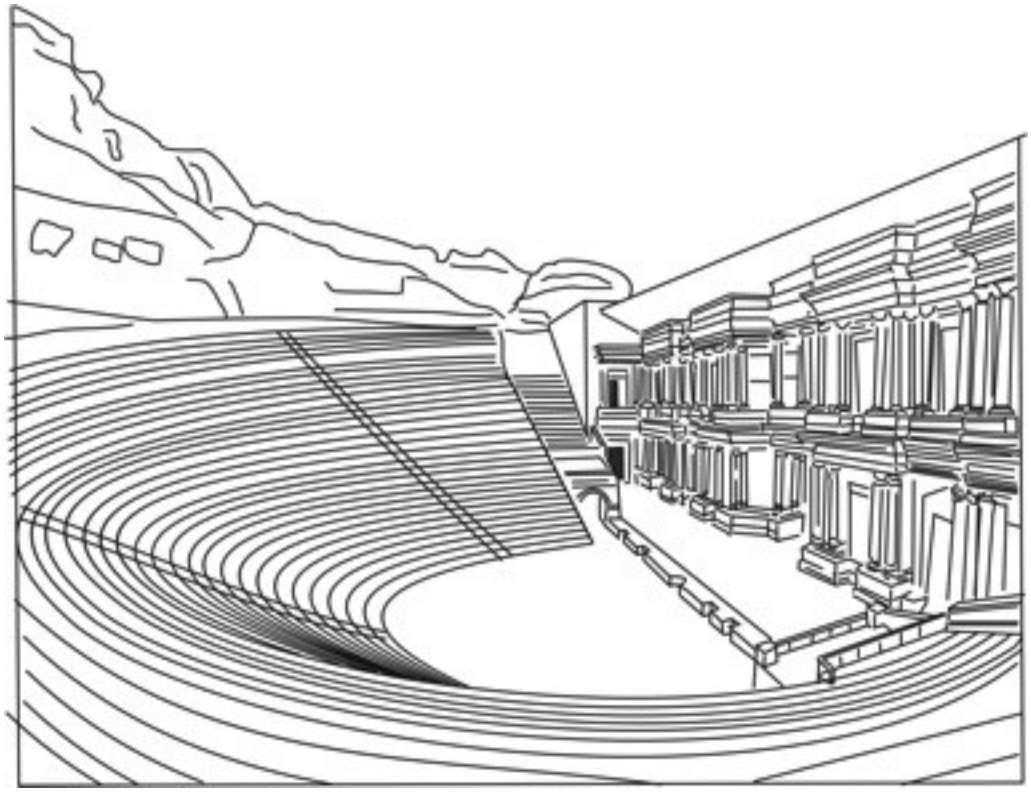
During the Bronze Age, there were limitations on the materials that could be produced, and there was a dearth of copper and bronze ore. Once man learned how to work iron, new tools and implements became possible, and their numbers could increase until even the poorer classes had access to metal tools and weapons. The iron of antiquity was wrought iron, a malleable and weldable material whose toughness was enhanced by forging. The brittle cast iron that is so common today was unknown to the ancients, and it would have been of no value for their edged tools and implements. The earliest history of smelted iron is obscure, with the first scanty evidence of man-made iron dating from about 2500 BC in the Middle East. A thousand years later the Hittites abandoned the use of copper and bronze as their main metal and began to use iron.

All during the Egyptian, Greek, and Roman empires, iron was a valued commodity. Although it was present in many places, iron mines were considered strategically important. So it is interesting to notice that the iron and copper mines in Wadi Arabah were the only iron and copper mines in Canaan. Consequently, Wadi Arabah was frequently fought over in Biblical times by the kings of Judah and Edom.

As the Nabataeans arrived in Wadi Arabah, they took over the iron mining business, often acting as agents in the production and trade of iron. So it was that objects and weapons made of iron were an integral part of any Nabataean caravan.

Arsenic

Arsenic has been known since ancient times. It is a pure element that can be easily prepared by heating a common ore called arsenopyrite. Occasionally the pure element is found in nature but arsenic usually occurs in the ores of many of the heavy metals. When these ores are roasted, the arsenic can be collected from dust in the flues as a by-product. Over time, arsenic was used in large quantities in the manufacture of glass to eliminate the green color caused by impurities in the iron compounds. A typical charge in a glass furnace contains 0.5 per cent of arsenic trioxide. Also, occasionally, arsenic was added to lead to harden it. Arsenic was such a useful industrial compound, that it was natural that it became one of the materials that the Nabataeans carried on their boats. Trade in arsenic continued for several centuries, with arsenic being listed as a cargo item on Arab boats until the Middle Ages. Arsenic however, was more than just an industrial product. Until the introduction of penicillin in the 1940s, arsenic was of great importance in the treatment of syphilis. Along with this, arsenic was also considered a poison of choice as doses larger than 65 milligrams (1 grain) are lethal, but, poisoning can also arise from repeated small doses, as, for example, inhalation of arsenical gases or dust.



A reconstruction of the amphitheater in Petra

Glass

Glass is made by heating a mixture of materials such as sand, soda, and limestone to a temperature of about 1,300 degrees Celsius (2,400 degrees Fahrenheit). Early attempts at glass-making used wood fires, but wood produces temperatures slightly lower than what is required for good glass-making.

Glass was used as early as 3000 BC in Egypt as a decorative colored glaze on stone or pottery beads. The art of making glass was perfected about 1500 BC in Egypt and the

Near East and many small ornaments and objects were made. Glassblowing, however, was probably discovered about 50 BC in Phoenicia. This greatly extended the types of objects that could be made of glass. It also made objects easier to fabricate and more transparent.

Glass containers such as bottles and jars were made by blowing hot glass into a mold. Certain glass objects such as plates, tumblers, and vases were made by pressing hot glass in a mold.

The art of glassblowing spread rapidly throughout the Roman Empire, with special centers of glassmaking being established in Phoenicia, Rome, Egypt, the Rhineland, and the Rhone Valley. As a result glassware became common and relatively inexpensive.

After the fall of the Western Roman Empire near the end of the 5th century, glassmaking decreased in importance in Western Europe, as did many other technologies and arts. Artistic glass almost disappeared. In Byzantium, however, Greek and Syrian glass centers continued to prosper.

Ancient glass was often colored by various impurities: chromates produced green, copper and cobalt produced blue, and manganese produced purple. The common green of ancient bottles resulted from the addition of oxidized iron. Brown glass was made by adding a combination of iron and sulfur. Very small metal particles in glass color it deeply; for instance, the addition of gold produced ruby-colored glass. Red glass was also made by adding copper or selenium.

Hand-blown glass bottles were being made in Rome near the turn of the millennium. These bottles and the popular mosaics of the period were probably the work of glass blowers from Alexandria, Egypt, and Syria. Syrian glass workers were known to have traveled as far north as Reims, in France. A unique type of Roman glass known as *millefiori* (thousand flowers) consisted of long canes of variously colored glass that were cut into small segments and implanted into glass bowls to form a pattern. Roman cameo glass was made by applying a white overlay to blue glass and carving away part of the overlay. Glass that had been buried in the earth for a long time acquired an opalescent quality that was caused by the flaking of the surface. This appearance is considered a disease today, but in Roman bottles the rainbow like surface added to both its value and appeal.

Middle Eastern and Roman glassware were transported by Arab merchants to many parts of Africa and Asia.

Beads

For many centuries, the production and trade in beads was considered very important. For many years, however, western historians have overlooked the importance of the bead trade. A common practice in the past has been that of calling every unidentified glass bead as 'Roman.' This label was used even when the bead in question could not have been Roman, as for example beads that have been identified as Islamic. However, in the last few years, the study of bead production and trade has finally been accepted in academic circles. Now it is clear that long before the Romans, glass beads were made in the Middle East and Asia, and long after the Romans, beads were made in Byzantine and Coptic territories, later to become Islamic regions.

Glass, for the first millennium of its use, was mostly made into beads. Because it was a novelty, made by a secret process, and was attractive, glass was viewed as a gem or

gem substitute and the many uses we have for it today were not even thought of in its early history.

Bead making spread from Mesopotamia to neighboring regions, especially the Levant (Syria, Israel, Lebanon) and by 1000 B.C. spread to parts of Europe. The beads made by these industries were all produced by the ancient method of furnace winding. This technique persisted in Europe until the last few centuries and was also common in the Middle East. Arab traders were quick to notice the bead trade, and began transporting the furnace-wound beads of Egypt and the Middle East to East Asia. But, interestingly enough, they also brought glass beads back from India to Europe.

Some of this can be seen from excavations of the Ptolemaic Egyptian Red Sea port of Berenike, where connections with South Asia have been found. The excavations produced Indian printed textiles, Indian sailcloth, Indian strings (with beads on them), and other Indian products, including teak wood, bamboo, Job's Tears, amalaka, and black peppers and beads from Mantai in Sri Lanka and India.

India was home to several major glass bead industries whose products had been leaders in the global bead commerce since before Roman times. There were also two stone bead industries, one located in western India and the other in the south. Because the Indians used intermediaries such as Nabataean merchants, they successfully hid the details of these industries from their best customer, the Romans.

India pioneered the making of hard stone beads from lapis lazuli and carnelian, and began exporting these beads centuries before the Romans. They also imported coral beads from Arabia. India also developed the darkened agate (gem onyx), etched carnelians, and other altered bead types.

The unique Indo-Pacific bead that originated in Arikamedu, India, was probably the greatest trade bead of all time. Archeologists have now worked out the details of their production.

These small Indian beads were cut from a tube of glass, and have been found in archaeological sites stretching from Ghana to China, Mali to Bali, and South Africa to South Korea. These beads were made by a unique method developed in South India several centuries B.C. The technique is still used today by Indian bead makers.

It requires a couple dozen men and women, three furnaces, two of them unique to the system, and specialized tools. Glassmakers prepare a large cake of glass and add it slowly to a unique tube-drawing furnace.

From this furnace, they produce tubes of glass about a meter in length. It takes about three hours to work 50 kilograms (about 100 pounds) into tubes. These tubes are then chopped between two blades, packed in ash, and stirred over heat for 30 minutes to round off their sharp edges. They are then strung up by women with long needles, passing them through the beads.

It is interesting to notice that this tube-drawing process is very similar in conception to the machine that Edward Danner of the Libby Glass Company patented in 1917 to draw glass tubing automatically. This process is also identical to the way that artisans in Venice processed glass tubes until the introduction of machines in the 1860s. There is no question that the Indians were doing this for two millennia or more before either Venice or Danner.

And what's more, the Indian beads have been found in royal and noble tombs in China (particularly Annam and Guangzhou), in royal tombs in Silla and Paekche, Korea,

and also in Japan.

These beads were first made in a port city on the southeast coast of India, known today as Arikamedu. In time, some of the bead makers left to expand their trade. From around the first century A.D. until around 1200 AD, Indian bead makers were also living in Vietnam, Thailand, Malaysia, Indonesia, and Sri Lanka, as well as their old home in India. Production was so enormous that for 1200 years, in the relatively remote Philippines, Indian beads accounted for two-thirds of all beads of all kinds excavated at all archaeological sites.

Indo-Pacific beads also went west. Arab traders took them to trade into Africa. They are found all along Madagascar, along the east coast, and along the west coast as far as the northern Forest Zone of West Africa. It is no exaggeration to say that Indian beads were the greatest trade beads, and perhaps the greatest trade items of all time.

Silk

Most school children can tell you that silk originated in China and that Marco Polo was the first western explorer to learn of it, and bring it back to Europe.

What many people don't know, however, is that silk was a prized cloth during Roman times. Silk is recorded as one of the many trade items that made its way via Arab traders to the Roman Empire. In fact, during the time of the Roman Empire, the Arabs of the Middle East developed new ways of weaving silk that was unknown in China. These techniques were peculiar to two Nabataean cities, and it brought them a reputation that has persisted to this day. Damascus gave its name to damask silk while our word gauze is derived from Gaza.

However, to date no articles of Chinese manufacture have ever been discovered in Nabataean cities. This suggests that all imports from China were perishables, such as spices, silk thread, and cloth, which could not have stood the test of time in the harsh Middle Eastern climate. However, the ancient seafaring records and cargo lists clearly tell us that silk was one of the items that the Arabs brought to the Romans.

During the Middle Ages, most trade with China was lost and it wasn't until Marco Polo's famous journey that silk once again became a much desired luxury in the homes of wealthy Europeans.

Gold

Wherever caravans went, gold went. Gold was the universal currency that traders dealt in. Coins were minted from gold and sometimes from silver, and were in large circulation during Roman times. Large caches of Roman gold coins have been found as far away as India where they probably acted as bullion. The Nabataeans themselves minted coins, but this will be examined later in the chapter on Nabataean economics.

As trade ships and caravans carried many valuables, they had to be protected. Since the Nabataeans had started out their sailing days as pirates, they seem to have become masters of the seas and may not have had so much trouble with other pirates. On land however, the Nabataeans developed a series of forts and caravan stops, all along the caravan routes. At many of these spots, archeologists have discovered the remains of barracks where soldiers were stationed to protect the wealthy merchants and their priceless cargos and loads of gold and jewelry.

Plants and other cargo

Rare plants were imported from Africa and the Far East. These were used to manufacture the widely acclaimed Egyptian medicines.

Greece and Hellenistic culture were overly occupied with the human form. Into this market, the Nabataeans stepped with perfumes and cosmetics from the East.

Other items that could be found among the Nabataeans cargo were costus root oil, coconuts, black-lipped pearl-oyster shells, earthenware vessels, Chinese porcelain, soccatrina, exotic animals, sugar, ivory, and coffee from Yemen.

Return Trade

The Nabataeans were skilled businessmen, and so they discovered that there were cargoes that they could carry on their return journey. Some items, such as silk, they managed to move in both directions, bringing raw silk from China to the Middle East, and then returning with the finished product, either in the form of gauze or damask silk. *The Periplus Maris Erythraei* shipping manual also mentions many items that the cargo boats carried to the East, including coral, olive oil, grain, wine, rice, sesame oil, ghee, cane sugar, dates, clothing, tools and metal implements and even slaves.

Bitumen

This trade was so important to the Nabataeans, Egyptians, and Syrians, that we will take an entire chapter to examine it.

Chapter Nine

Nabataeans and the Oil Industry

Bitumen from the Dead Sea may well be among the most intriguing of the many trade items that passed through Nabataean hands. Bitumen or tar had been gathered and sold to the Egyptians for many centuries by those who lived on the shores of the Dead Sea. Over time, the Nabataeans gained a monopoly on this product and consequently they came to the attention of the military powers in Damascus.

The earliest historical mention of Dead Sea bitumen is found in Genesis 14 where the scriptures tell us of battles fought in the area of the bitumen pits.

"*In the days of Amraphel king of Shinar, Arioch king of Ellasar, Chedorlamer king of Elam, and Tidal king of Goiim, these kings made war with Bera king of Sodom, Birsha king of Gomorrah, Shinab king of Admah, Shemeber king of Zeboiim and the king of Bela (that is Zoar). And all these joined forces in the valley of Siddim, that is, the Salt Sea*." Genesis 14:1

"*Now the Valley of Siddim was full of bitumen pits; and as the kings of Sodom and Gomorrah fled, some fell into them, and the rest fled to the mountains*." Genesis 14:10

The time setting for this event would have been during the life of Abraham, who is generally considered to have lived around 1750 BC. This is the first literary evidence of bitumen in this area.

The Bitumen Industry

The Egyptians used bitumen in the embalming process as well as for waterproofing coffins and other articles. Another common practice was to use bitumen as a cement or binding agent. In addition, this substance was employed in the manufacture of imitation gems and in the coloring and production of metals.

The Dead Sea, known in antiquity as Lacus Asphaltites (Asphalt Lake), produced the bitumen, which the local inhabitants harvested to sell to Egypt. The Dead Sea was relatively close to the Nabataean center at Selah. As Nabataean power grew, they managed to gain control of this industry.

The following comes from Strabo's Geography, Book 16. 2.42-46 (The Dead Sea)

"*is large; in fact some state that it is one thousand stadia in circuit; however, it extends parallel to the coast to a length of slightly more than two hundred stadia, is deep to the very shore, and has water so very heavy that there is no use for divers, and any person who walks into it and proceeds no further than up to his navel is immediately raised afloat*.

It is full of asphalt. The asphalt is blown to the surface at irregular intervals from the midst of the deep, and with it bubbles raise, as though the water were boiling; and the surface of the lake, being convex, presents the appearance of a hill. With the asphalt there arises too much soot which though smoky is imperceptible to the eye; and it tarnishes copper and silver and everything that glistens, even gold; and when their vessels are becoming tarnished the people who live round the lake know that the asphalt is beginning to rise; and they prepare to collect it by means of rafts made of reed

The asphalt is a clod of earth which at first is liquefied by heat, and is blown up to the surface and spreads out; and then again by reason of the cold water, the kind of

water the lake in question has, it changes to a firm, solidified substance, and therefore requires cutting and chopping; and then it floats, because of the nature of the water, owing to which, as I was saying, there is no use for divers; and no person who walks into it can immerse himself either, but is raised afloat. They reach the asphalt on rafts and chop it and carry off as much as they can.

It is reasonable that this behavior should occur in the middle of the lake, because the source of the fire and also the greater part of the asphalt is at the middle of it; but the bubbling up is irregular because the movement of the fire, like that of many other subterranean blasts, follows no order known to us. Such also, are the phenomena at Apollonia in Epirus.

Many other evidences are produced to show that the country is fiery; for near Moasada are to be seen rugged rocks that have been scorched, as also in many places, fissures and ashy soil, and drops of pitch dropping from smooth cliffs, and boiling rivers that emit foul odors to a great distance, and ruined settlements here and there; and therefore people believe the oft-repeated assertions of the local inhabitants that there were once thirteen inhabited cities in that region of which Sodom was the metropolis, but that a circuit of about sixty stadia of that city escaped unharmed; and that by reason of earthquakes and of eruptions of fire and of hot waters containing asphalt and sulfur, the lake burst its bounds and rocks were enveloped with fire; and as far as the cities, some were swallowed up and others were abandoned by such as were able to escape…The Egyptians use the asphalt for embalming the bodies of the dead."

Diodorus Siculus (c. 80-20 B.C.) wrote the following passage concerning the Nabataean bitumen (asphalt) industry on the Dead Sea in Book II.48.6-9 in his Bibliotheca Historica.

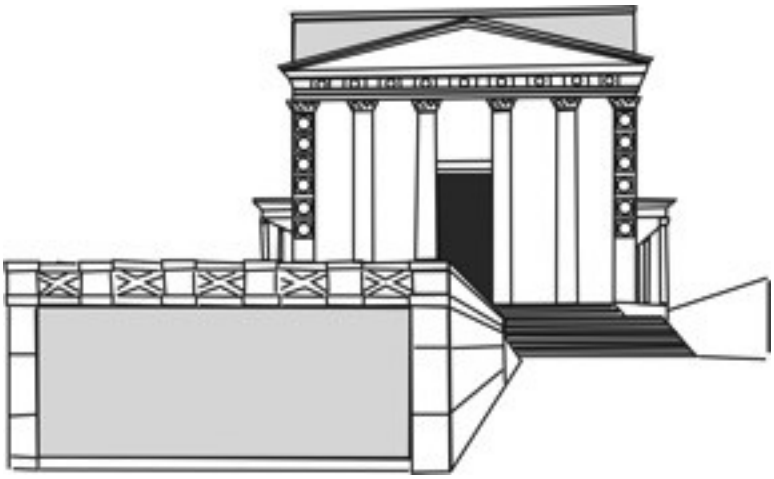
"*On occasion, asphalt may still be observed floating on the surface of the Dead Sea. There is also in the land of the Nabataeans…a large lake… which produces asphalt in abundance, and from it they derive not a little revenue. It has a length of about five hundred stadia and a width of about sixty, and its water is so ill-smelling and so very bitter that it cannot support fish or any of the other animals which commonly live in water. And although great rivers of remarkable sweetness empty into it, the lake gets the better of them by reason of its evil smell.*

From its center it spouts forth once a year a great mass of asphalt, which sometimes extends for more than three plethora, and sometimes for only two; and when this occurs the barbarians who live about the lake usually call the larger flow a "bull" and to the smaller one they give the name "calf." Since the asphalt floats on the surface of the lake, to those who view it from a distance it takes the appearance of an island.

The fact is that the emission of the asphalt is made known to the natives twenty days before it takes place; for to a distance of many stadia around the lake the odor, borne on the wind assails them, and every piece of silver and gold and brass in the locality loses its characteristic luster. But this returns again as soon as all the asphalt has been spouted forth; and the region round about, by reason of its being exposed to fire and to the evil odors, renders the bodies of the inhabitants susceptible to disease and makes the people very short-lived."

An examination of the Nabataean bitumen industry reveals that the Nabataeans were not simply sailors and caravan masters. They were also resourceful entrepreneurs providing a necessary product to an essential Egyptian industry, that of embalming the

dead. Bitumen was a valuable trade commodity, which the Nabataeans continuously struggled to retain and protect.



Temple of Durshares in Petra, known as Qasr al Bint.

Bitumen was an important economic and political factor in the eastern Mediterranean and the Nabataeans fiercely strove to protect their monopoly. Diodorus records how, in 312 B.C., they decisively repulsed attacks launched by one of the early contenders for Alexander the Great's empire, Antigonus The One-Eyed. Antigonus attempted to seize the lucrative bitumen trade with Egypt for himself. As we mentioned earlier, this confrontation launched the Nabataeans onto the stage of recorded world history.

During the first century BC, the Nabataeans faced a new and increasing threat to their independence. In 62 BC Scaurus, a Roman officer under Pompey led an expedition against Petra. He was unsuccessful in taking the city but the Nabataeans offered him silver to withdraw. Josephus in Antiquities of the Jews, recounts the following:

"*Scaurus made now an expedition against Petra in Arabia, and set on fire all the places round about it, because of the great difficulty of access to it…his army was pinched by famine… (The Judean King) Antipater was sent to Aretas (King of Nabataea)] as an ambassador, by Scaurus, because he had lived with him formerly, he persuaded Aretas to give Scaurus a sum of money, to prevent the burning of his country; and undertook to be his surety for three hundred talents. So Scaurus, upon these terms ceased to make war any longer; which was done as much at Scaurus' desire as at the desire of Aretas.*"

Seven years later, encouraged by Scaurus' silver windfall, Roman commander, Gabinius invaded Nabataea and demanded and received a similar inducement to depart. Roman demands became even bolder. Mark Antony annexed the kingdom ca. 36 BC and gave the Dead Sea region with its bitumen to Cleopatra. Again, from Josephus' *Antiquities*, IV:1:

"*Now at this time the affairs of Syria were in confusion by Cleopatra's constant persuasions to Antony to make an attempt upon everybody's dominions; for she persuaded him to take those dominions away from their several princes and bestow them upon her; and she had a mighty influence upon him, by reason of his being enslaved to her by his affections… She also petitioned Antony to give her Judea and Arabia; and, in order thereto desired him to take these countries away from their present governors.*"

After Cleopatra obtained control of the Dead Sea bitumen industry, she cleverly developed a way to maximize the income from the operation while insuring the continued flow of bitumen into her kingdom. She leased the Dead Sea bitumen industry back to Nabataean King Malichus I for 200 talents (the modern equivalent of $400,000/year) and she arranged for King Herod of Judea to collect it and pass it on to her. Thus, through this arrangement, she would receive considerable revenue without any monetary, military, or labor expenditures.

However, such a financial toll on the Nabataeans soon became unbearable. Before long, King Malichus, under pressure from his Council of Elders, began to defy the Egyptian Queen. Josephus, in his Antiquities IV: 4, records the following:

"*As for the King of Arabia, whose tribute Herod had undertaken to pay her, for some time indeed he paid him as much as came to two hundred talents; but he afterward became very niggardly and slow in his payments, and could hardly be brought to pay some parts of it, and was not willing to pay even them without some deductions.*"

Cleopatra called on Antony to launch a punitive campaign against Nabataea. This would be led by his protégé Judean King Herod. Ultimately, this turned out badly for the Queen. The Nabataeans defeated Herod in the battle of Qanawat, and shortly after, in 31 BC, Antony was defeated at Actium.

Then, Cleopatra's heavy-handed policy toward the Nabataeans came back to haunt her. In a desperate attempt to escape to India, she had some of her ships dragged overland from the Nile to the Red Sea. As it happened, the Nabataeans caught wind of this.

No sooner were Cleopatra's ships launched than the Nabataean navy attacked and burned them. Estimates are that Cleopatra lost sixty ships. With the Red Sea escape route cut off, Antony and Cleopatra were forced to flee to Alexandria where they committed suicide. Egypt then became a colony of Augustus' emerging Roman Empire after Cleopatra's death.

The bitumen industry went belly-up after the Egyptian and Romans stopped practicing mummification. Several mummies from Roman time have survived. These were Roman citizens who "went native" in Egypt. You can recognize them because on the wrappings they painted remarkably lifelike portraits of who was inside.

Christianity's arrival killed the practice of mummification. Christianity teaches that God will give believers new bodies when they are resurrected, so there was no need to keep the old body around anymore.

However, while mummification was still practiced, millions of Egyptians were embalmed, all with bitumen from Nabataea.

Chapter Ten

The Southern Arabian Kingdoms

Traditionally the Nabataeans have been known for their role in the incense trade. Frankincense and myrrh, the main components of the incense trade, were obtained from trees located in the southern part of Arabia. (Later, incense was also obtained from East Africa.) The Nabataeans, however, did not farm the trees themselves but rather, purchased the prepared incense from the local people of southern Arabia. As the incense trade grew, the peoples of southern Arabia obtained the finances to start build kingdoms of their own.

Over the centuries, as money entered southern Arabia, these small kingdoms grew and waged war on each other as they struggled to monopolize incense production. Along with this, the port cities of southern Arabia were used by Arab traders for journeys to India and other Asian ports. These traders brought back spices and other goods that augmented the Southern Arabian kingdom's income from incense.

Spices and textiles arrived by ship from India, silk from China and gold and ostrich feathers from Ethiopia. These goods were then packed off by boat and camel caravan to Egypt, Persia, Nabataea, and even to Palmyra in Syria. From these centers, the goods made their way to the civilizations on the Mediterranean.

As the Nabataeans grew in economic power, they gained greater control over the incense trade. Eventually they dominated the shipping on the Red Sea, and through their use of diplomacy and military strength they dominated the caravan routes in Arabia. This made them the exclusive customers of the kingdoms of Southern Arabia, and thus it was vital that they maintain excellent diplomatic relations with these kingdoms, and in some cases the Nabataeans even interfered in how these kingdoms were ruled.

In order for the Nabataeans to maintain premium profits, they had to keep their customers: Egypt, Greece, and Rome, from contacting their sources: the kingdoms of the Himyarites and Sabaeans in southern Arabia, as well as their suppliers in India, Ceylon and China. As long as they kept their sources a secret, or at least shrouded by stories and legends, they could realize maximum profits. If they paid the kingdoms of southern Arabia too much, then these kingdoms would grow in size and power, and would eventually start selling directly to the kingdoms on the Mediterranean. If they paid too little, these same kingdoms might one day hear of the exorbitant prices that the Nabataeans were obtaining for their products in Europe, and cut them out of their role as middlemen.

As a result, the Nabataeans played a very careful role, raking in tremendous profits while being very secretive about their trade and trade practices.

The famed frankincense route was one of the most ancient international trade routes leading from Southern Arabia to Gaza in Palestine. It ran along an inland trail, roughly parallel to the Red Sea and covering a total distance of almost 3,400 km. While production of frankincense was in the hands of the South Arabians, trade was in the hands of the Nabataeans, and both the consumer and the producers were at the mercy of the middlemen. There was not a temple or wealthy home in Babylon, Egypt, Greece, Jerusalem, or Rome which did not require these precious resins to please their gods. Everyone, it seemed, was prepared to pay whatever it took, in order to obtain this

precious commodity. Thus, it was vital that the Nabataeans not only have good relationships with these south Arabian kingdoms; it was vital that they remotely guide and influence these kingdoms without seeming to meddle directly in their politics.

Today, archeologists are just beginning to fit together the pieces that are required to give us a basic understanding of the peoples and kingdoms of southern Arabia. This is a very difficult task, however, because while they can read the writings of these people, few things link them to events mentioned in other civilizations. The Nabataeans were their principle link to the outside world, and the Nabataeans did an excellent job in keeping them as isolated as possible.

Early History of Southern Arabia

Prehistoric times in the south of Arabia remain largely un-researched, but more and more Stone Age sites are coming to light.

For example, in Yemen, there is a field of 19 stones, each about 6 feet tall, arranged in a circle with a circumference of about 250 feet. Beyond the ring are ruins of several small structures and a site where Late Stone Age people appeared to have made flint tools, and weapons. Like Stonehenge in Britain, no one seems to know what the circle of stones would have been used for, outside of some ceremonial purpose or perhaps something related to astronomy in some way.

Furthermore, there are many rock drawings in the desert areas adjacent to the Yemeni stone circle in which collectors, hunters, and herders of the period between the fifth and second millennia BC depicted themselves, their weapons, their customs, and their daily life. Hunting featured prominently in the life of these early groups of people. These people differed in appearance from later inhabitants of the region, so it is assumed that they were driven out of their settlements by the expansion of the southern Semitic tribes, or destroyed by plague or some other event.

Over time, four groups of people arrived: the Sabaeans, Mineans, Qatabanians, and Hadramites. They spoke a different language from the early Stone Age settlers and were immigrants coming from the north, probably from the northeastern Arabian region on the Arab Persian Gulf. They brought with them the rudiments of what was to become the highly developed civilization of Southern Arabia.

The Sabaeans

The earliest kingdom we know about is that of Saba (Sheba) with its capital city called Ma'rib. This city was built on the edge of the desert in the dry delta of Wadi Adana. In this area, there is little rainfall, but twice a year, the wadi fills with water from the biannual rains that occur higher up in the mountains. The water in the wadi was then used to irrigate the rainless, arid area around the wadi making cultivation possible. Examination of the sediments found around Ma'rib has shown that irrigation in this region goes back to the third millennium B.C.

Agriculture was difficult and costly to say the least. It presupposed the power to control and exploit the seasonal rain-floods with the aid of complex irrigation systems. Again and again these installations were threatened by unusually strong floods. Canals and dams had to be maintained in good working order or the whole thing would not work. Finally, one had to reckon with periods of drought, when rain would not come for several years at a time.

Ma’rib's position, however, had less to do with access to water, and more to do with incense. The city held a commanding position on the developing inland caravan route that ran from the areas on the Indian Ocean (eastern Yemen today) which produced frankincense across the desert to the Mediterranean. This route wound its way along a chain of watering places between the mountains and the desert.

The caravan trails depended as much on the political situation and trade connections as on the geography of the area. In order to make one's way from the main centers of production (which were in the eastern Yemen) to the Mediterranean Sea, one had to avoid the mountains, with their difficult passes, feuding tribes, and frequent dens of thieves. At the same time, one had to find enough water and food for men and beasts. There was practically only one trail in South Arabia which fulfilled all these requirements: from Shawl, the capital of the Hadramaut, it went through the desert, following the Yemenite mountain ridge to Timna, the capital of Qataban. From there, it passed via Ma’rib, the capital of Saba, to Baraqish, and on past Jebal al-Lawdh, to Najran.

Being completely level, the track offered no natural obstacles. Artificial irrigation safeguarded water and food supplies for the caravans. It is therefore not surprising that the ancient capitals along this trail were situated at the points where the most important valleys entered the plain.

About the middle of the 5th century B.C. Herodotus recorded the distance between Timna (the capital of Qataban) and Gaza, the northern end of the frankincense route, as 2,437,500 steps, or 65 days by camel. He was particularly impressed by the prices of South Arabian goods and complained bitterly about Greece's trade deficit (100 million sesterces). Consequently, the Romans looked upon the riches of southern Arabia with envy.

As money became available through the sale of incense, the Sabaeans began to erect large sanctuaries, which were entered through impressive monolithic pillars. Work was started on the stone walls which were to be the fortifications of the towns. At the same time (6th century B.C.), the first written documents in the form of stone inscriptions appear. The oldest of these are very short and invariably refer to religious rites or construction projects. These inscriptions are in Sabaean characters, which later became wide spread, extending even to Ethiopia. Some experts feel that the Sabaean characters may have been derived from alphabets existing in Southern Mesopotamia.

The first mention of a caravan on the so-called frankincense route is contained in the Old Testament. The story in I Kings 10:1-13 tells us of the visit of the legendary Queen of Sheba to King Solomon (about 970 - 930 BC). This report suggests that trade relations were being established or expanded between these two kingdoms. It is generally assumed that Sheba was located in Southern Yemen, although some have argued that it could have existed in Ethiopia,

Three Assyrian texts from the 8th and 7th centuries B.C. mention tributes or presents from Saba. These lists of the goods include incense and precious stones. From this we can assume that the two rulers associated with these gifts are southern Arabians Sabaeans, not, as some have suggested, a north Arabian tribe of the same name.

Saba lay outside the reach of the Assyrian armies; therefore the tributes cannot have been an expression of political submission. It is much more likely that they were trade tariffs or gifts which were supposed to guarantee smooth trading. Thus the passage

constitutes the first, if indirect, reference to Sabean trade with the north.

Later, a Sabaean named Itamra and identified as a representative of the Sabean ruler, Yitea Amar, is mentioned as one of those who brought tribute, in the great inscriptions of the Assyrian king, Sargon II, dating from 715 B.C. This is most probably due to the fact that during this time the Assyrians had gained control of the port of Gaza where the frankincense route reached the sea.

Thirty years later, around 685 B.C., the Sabaean ruler, Karibilu, sent gifts to the Assyrian king, Sennacherib, when the foundation stone for the Bit Akitu temple was laid outside of the ancient Sumerian city of Uruk (biblical Erech).

The Ma'rib Dam

As the Sabaean kingdom developed, they built a huge earth filled dam in the second half of the 6th century BC to hold back some of the water that came down the wadi. From the lake that formed behind the dam, they developed a splendid irrigation system that watered about 25, 0000 acres.

During the years that I lived in Yemen, I had the opportunity to visit the ruins of the quarter-mile-long Ma'rib Dam. I also viewed the new modern dam as it was built and the huge water reservoir that then filled up behind the dam. When the ancient reservoir re-filled with water, hundreds of old dry wells and water canals scattered through the desert below the dam suddenly filled with water again. The ancient farmlands, that for centuries had lain deserted, were suddenly usable again.

Saba extended its territory to the coast of the Red Sea and then it moved on by establishing colonies across the sea in Abyssinia, east Africa. This is substantiated by the Sabaean inscriptions found there.

The Minaean Kingdom

Over time, various groups splinted off from the Sabaean Kingdom. Ma'in was originally a Sabean territory, but towards the end of the 5th century BC, it gradually began to sever its ties with Saba. For more than a century it enjoyed a period of tremendous economic prosperity.

During this period, the Minaean Empire controlled most of the incense trade routes in southern Arabia. To control and protect this route the Minaeans established a colony far out in the northwest of Arabia, in the oasis of Dedan.

The confrontation between Saba and Ma'in for control of the frankincense route is illustrated by an inscription that describes a battle between the Medes and Egypt which is probably a reference to the subjugation of Egypt by Artaxeres III Okhos in 343 B.C. In this inscription, the two leaders of the Minaean community of Dedan express their gratitude for the fact that their property had been saved from attacks by Sabeans on the caravan route between Ma'in and Najran.

Further proof of the extent of the Minaean influence is reflected in their inscriptions which refer to Gaza, Egypt, Ionia, Sidon in Phoenicia, Ammon, Moab, Yatrib (later known as al-Medina), and other places. Along with this, an epitaph found on a sarcophagus discovered in Egypt, recounts that a Minaean delivered perfumes to an Egyptian temple.

On the Greek island of Delos, with its temples dedicated to Apollo and Artemis, two Minaeans erected an altar to their native god Wadd, and in the early Greek and Roman

world historians spoke of "Minaean frankincense" because it was mainly the Minaeans who produced this much demanded product.

Around 400 BC, Ma'in and Qataban broke free of the Sabean yoke and expanded their territories considerably. At the height of their power in the third and second centuries B.C., Qataban extended its power as far as the Indian Ocean in the south and to within a day's journey of the Sabean capital Marib in the north.

As these other ancient kingdoms of Southern Arabia grew in strength, it became urgent for the Sabeans, seeing themselves hemmed in, to fortify Marib, their easternmost base. They also managed to bring the routes leading into the Yemenite highlands more and more under their control.

Some South Arabian inscriptions mention the incense trade as is illustrated in an inscription (about 4th/3rd century B.C.) found on a straight section of the city wall of Baraqish. It runs something like this:"*Ammisadiq… and the leaders of caravans, and the Minaean caravans who had set off in order to trade with Egypt, Syria and beyond the river… at the time when (the gods) Athtar dhu-Qabd, Wadd and Nakrah protected them from the attacks which Saba and Khawlan had planned against them, their property and their animals, when they were on their way between Ma'in and Najran. And in the war which was raging between north and south. And at the time when (the gods) Athtar dhu-Qabd, Wadd and Nakrah protected them and their property when they found themselves in the heart of Egypt during the war between the Medes and the Egyptians. Athtar Dhu-qabd guaranteed to them and their property peace and indemnity until they returned to their town Qarnaw*."

The Hadramaut

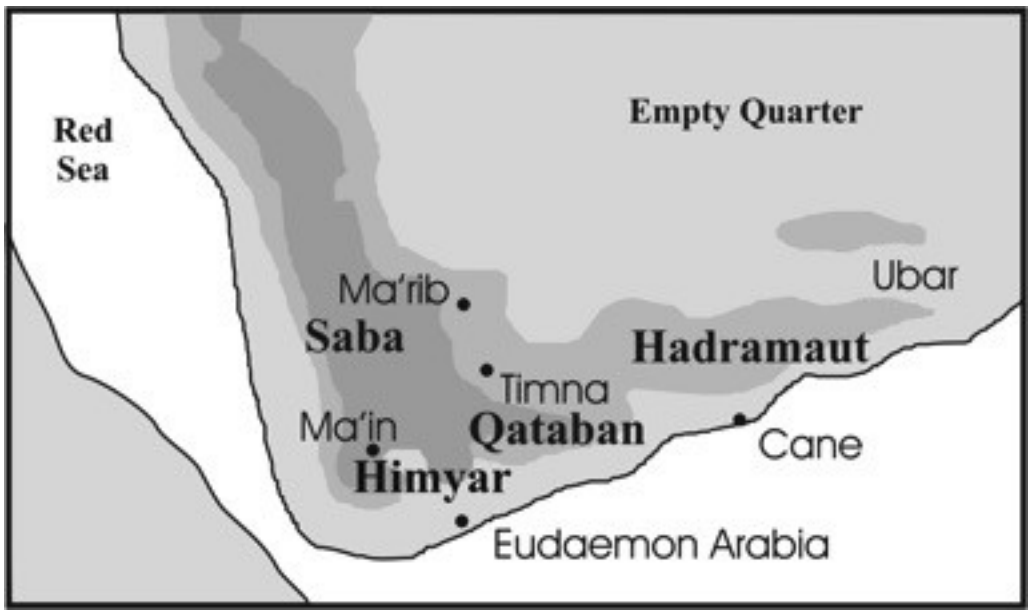
Sabean inscriptions suggest that the Hadramaut was an ally or vassal of the Sabean empire up to the 4th century B.C., when it became an independent kingdom and acquired tremendous economic significance because of its possession of Dhofar, the area in the east where the frankincense grew.

A rock inscription at al-Uqla near Shabwa, where the kings of Hadramaut annually re-enacted the coronation ritual, tells of delegations from Palmyra, Chaldea, and India about 235 A.D., whom the ruler apparently invited to attend this important event.

One of the outstanding features of the Hadramaut was the ability of their builders to build high-rise buildings from mud. Even today, many mud houses in Hadramaut villages reach eight to nine stories.

It is hard to image that well before the birth of Christ, the inhabitants of southern Arabia erected buildings, some of which reached eight stories. When built side by side, ancient towns like that of Shibam, Yishbum, and Sana'a had streets of high-rise buildings.

A four-line inscription, today in the Museum of Sana'a, tells of the buildings in the Sabean Himyaritc region that were made of stone:"*Muhabayyih Atkan, son of Manakhum, and Akhal and Bahil and Halilum, of the Musawwilum (clan) have built and founded and improved and completed their stone house Ahdathan from the floor up to a level of six ceilings with six stories, and they have added two (further) stories and all the store rooms and its terrace and the stone structure of Dhu-kahnal*." For 'story' the Sabaean text uses the word saqf, which is the term still used in Sana'a today.



Map of Southern Arabia

For centuries, these four kingdoms Saba, Ma'in, Qataban, and Hadramaut) were of more or less equal strength. They rivaled one another for control of Southern Arabia, but in the last quarter of the 2nd century B.C., a shift of power took place.

Around 250 BC, the Minaean Empire and parts of western Qataban were conquered by Saba, while Radman, formerly a province of Qataban, managed to gain independence and to rob Qataban of some of its southern territories.

The Himyarites

The Himyarite Empire was founded in 115 B.C., on the corner of the Arabian Peninsula at a place known as Bab-el-Mandeb. Gradually it expanded its control and slowly annexed all the surrounding Southern Arabian states. Saba was conquered in 25 B.C. after the Roman Army, led by the Nabataeans, attacked and weakened Saba. Qataban fell to the Himyarites in 50 A.D., and Hadramaut followed in 100 A.D. From that time on, the Himyarite Empire was Arabia's dominant state until the sixth century A.D. Like other early Arab states, the Himyarites made a living by selling frankincense and myrrh to the rest of the civilized world. This was such a lucrative business that the Romans called the Himyarite Kingdom Arabia Felix," meaning Happy Arabia.

To date, the first mention of Himyar in Southern Arabia occurs in a Hadramite inscription, dating from the beginning of the 1st century A.D., which reports the building of the wall at Qalat, the later Libna, to protect Hadramaut from the Himyars in the south, who had apparently already occupied large stretches of the coast.

The Himyar metropolis, Zafar, was mentioned for the first time as Sapphar in the sixth book of Pliny's *Natural History*, written during the reign of Emperor Nero (A.D. 54 - 68). Henceforth Zafar challenged Marib for supremacy and the Himyar rulers even claimed Saba by designating themselves "*Kings of Saba (Sheba) and Du-Raidan*", a title which from then on the Sabean kings residing in Marib likewise adopted to stress their own claim to be the sole rulers of Yemen.

It seems that the Nabataeans allied themselves with the new Himyarite Empire that

lay along the southern coast. The other South Arabian kingdoms all had capitals and cities that faced inland towards the incense trail. These kingdoms refused to export incense by boat, and relied totally on Arab camel caravans to carry their goods north. The Himyarites on the other hand, floated their frankincense out to an island where the Nabataean boats collected it and transported it to the markets in the north. Within a few years, the Himyarite Empire grew in strength and power, while the other kingdoms struggled and eventually caved in to Himyarite domination. By transporting incense with boats, the Nabataeans eventually gained almost exclusive control of the frankincense trade between Arabia Felix and the Mediterranean. Over the next several centuries the Nabataeans capitalized on this monopoly, raking in incredible profits.

The Roman Army in Southern Arabia

As we mentioned earlier, as Nabataean profits grew the Romans became concerned about the drain that the incense trade was making on their economy. Things became so bad, that in 24 B.C. Aelius Gallus, the Roman prefect of Egypt, decided that an expedition had to be sent to Arabia Felix to discover the source of the incense. He insisted that the Nabataeans guide his soldiers in the expedition. The Nabataeans were of course initially dismayed until Seleucius, the brother of the king, realized how the Roman Army could be used to crush Saba, the Mineans, and the Hadramaut and thus help transfer power to the Himyarites, close friends of the Nabataeans.

Rather than making the entire journey by boat, the Romans, under Seleucius' guidance, landed on the coast of Saudi Arabia, and made a difficult journey through the rocks and sand. Hundreds of Roman soldiers died on the journey. Once in the Hadramaut, more soldiers died from disease and exposure. Najran was conquered and several Minaean towns were destroyed. Others opened their gates to the enemy. Marib held out, however, and in the end, the Romans were forced to retreat through lack of water and rampant disease.

The expedition had failed only a few miles from the frankincense fields. For the Romans it was a disaster. Seleucius was later executed by the Romans for failing to bring the soldiers successfully to their goal. However, the expedition was a success for the Nabataeans as the Roman foray upset the balance of power in Southern Yemen, allowing the sea based Himyar Empire to expand its area of control against the war torn areas, as soon as the Roman army had left.

Second Harvest

As the demand for frankincense grew, the Hadramis from the Hadramaut introduced a second harvest of frankincense in Dhofar. Nevertheless, even this was not enough to completely supply the demand. Pliny mentions that a few dozen million sesterces went to Rome from the Himyarite Kingdom. Then at the funeral of Nero's wife (65 AD), Pliny the Elder tells us that an entire year's harvest of frankincense was burned. This created massive shortages of frankincense throughout the entire Roman world.

The Nabataeans by this time were almost exclusively making use of the sea route, loading frankincense from their island off the Himyarite coast. This port was out of the control of the warring kingdoms of Southern Arabia and provided a secure place for them to conduct commerce. These goods were then moved north by boat, and unloaded at the Nabataean port of Leuce Come where Nabataean caravans moved them north to Petra

and west to Alexandria and Gaza. It is interesting to note that the Nabataeans also set up a military fort at Leuce Come so that they could tax the incense that still made its way through the traditional overland route. The tax was set at one quarter the value of the caravan's load. Farther inland the Nabataean center at Meda'in Saleh was situated at the inland caravan cross roads and controlled all of the trade passing through that point.

Eventually the Himyarite Kingdom suffered a permanent economic slump because of Christianity's success, and the decline in the demand for incense. For centuries the Egyptians had stuffed mummies with myrrh, and Greeks & Romans used frankincense to cover the odor of burning flesh at cremations. Since Christians buried their dead, instead of burning or embalming them, the demand for frankincense and myrrh dropped dramatically as Christianity spread in Europe.

The 'Fall' of the Southern Arabian Empires

The first record of the breach of the Marib dam is found in an inscription stemming from the reign of Ta'ran Yuhanim and his son Malikkarib Yuha'min in the second half of the fourth century AD. Then in 542 AD, the Marib dam was breached again.

The beginning of the seventh century witnessed the final destruction of the Marib dam. This disastrous event, referred to in the 34th surah of the Qur'an as "the Flood" caused the desolation of the Marib oasis. Following the death of Khosrau II in 628, the Persian governor in Southern Arabia, Badhan, converted to Islam and Yemen followed the new religion. Thus for the first time in history the Arabian Peninsula was politically united and able to build up strength to a level unknown during the time of the competing kingdoms of Southern Arabia.

Modern Discovery of Ubar

Today southern Arabia is the center of a flurry of archeological activity as historians try to piece together the puzzles of history, especially the history and location of the fabled towns and cities on the frankincense trade route.

The legendary city of Ubar was once a center of trade and wealth. According to legends and accounts by early historians, this city was fabulously wealthy as it was located on the overland incense trail.

One day, however, a prophet arrived on the scene and approached the last king of Ubar. This prophet foretold that the city and the entire civilization of Ubar would be destroyed by God, as punishment for their wicked living. The king ignored him and a short while later the city disappeared from historical record and was buried under the sands of the Empty Quarter of Arabia.

Then in the 1980s, a geologist and specialist in space remote-sensing technology from the Jet Propulsion Laboratory in Pasadena, California by the name of Dr. Ronald G. Blom, compared maps made by Ptolemy, the Roman historian, with photographs from Landsat space satellites. He hoped that he could identify sites that archeologists could later investigate on the ground.

From the Landsat pictures, however, he discovered that there were no ruins of any ancient cities visible. However, because so little had changed in the deserts of Oman and Yemen, he could see ancient paths and tracks in the desert. These tracks had persisted for a very long period, and after careful computer processing, the scientists were able to make them out on the Landsat pictures.

The ancient tracks acted like a road map. The scientists assumed that where many tracks merged, an ancient city must exist. When the archeologists arrived at the spot that Dr. Blom had pointed out, they indeed discovered the ruins of a very ancient city in the deserts of Arabia. It is assumed that these ruins are the remains of ancient Ubar.

Trade Routes

A new expedition by George R. Hedges, a Los Angeles lawyer with a background in archeology, recently returned from an extensive reconnaissance in trucks across the Mahara region of Yemen. Covering some 2,000 miles in three weeks, the team found the ruins of two limestone fortresses which are similar in design and construction to those in the incense region of Oman.

They also came upon distinctive stone monuments, called triliths, that appeared to mark caravan routes. Along the way, they collected shards of pottery in a style corresponding to those found at frankincense sites in Oman. Mixed with the local pottery were pieces of red-painted ceramics possibly from Nabataea, giving evidence of Nabataean trade even during the Roman era.

This team also followed photographs from Landsat spacecraft. But, as usual, the local tribe people knew more than the technology-savvy scientists. A police colonel in the town of Sayhut told the researchers about an old fort that was located up a wadi outside of the town. The fort proved to be the first impressive find, and seemed identical to the fortress at Ubar, in Oman. Along with this, the pottery fragments there were nearly identical to those found earlier.

Within the thick stone walls of the fort stood a central castle-like building. At the base of the hill were the traces of an ancient settlement and agricultural fields. The fort was located over 400 kilometers from Ubar, and supports the theory that the Ubarites controlled a large section of trade in eastern Yemen.

Pliny the Elder, in the first century A. D., reported that the frankincense region could be found by traveling a route from Shabwa, an ancient city in Arabia Felix that still exists today. From Shabwa, there was a marked route with eight small fortresses or rest stations located at various stages.

Archeologists believe that the forts they located are two of the intermediate fortresses on this route. They came upon the second fort on a plateau overlooking the Minar wadi. This fortress resembled in all the important aspects, the other known sites. The pottery found there dated the fort to the heyday of the frankincense trade, 200 B. C. to about A. D. 300.

Between the forts and elsewhere in the region, are more than 30 triliths. These lines of standing stones, three to a group and about three to five feet high, were markers along the trade routes. These triliths conveyed distances, locations of water sources and directions. The whole region where these forts and trade routes are located is in the location that was labeled by Ptolemy as Myrrifera Regio, roughly translated as Myrrh country.

Throughout this region of Yemen are large groves of myrrh trees, some over 10 feet high. The local Yemenis still tap the trees to produce myrrh, which they sell in the local markets in Yemen.

Frankincense on the other hand, comes from the Qara Mountains, which are located along the coast of Oman. In these mountains, the monsoons of the Indian Ocean provide

more moisture, allowing the frankincense trees to flourish.

Nabataean Connections

Directly north of Petra is a small but significant archeological site called Tawilan. It lies above the entrance to Petra. There have been people living in Tawilan since the end of the eighth century BC, probably the earliest time when the Nabataeans may have entered the area. Large amounts of painted pottery from the sixth century BC were found at this site, including, of all things, a Sabean seal. Such a seal would only have been in the possession of a Sabean government official, or an official representative of the Sabeans, (or perhaps a criminal or con man). Along with these items, an altar was found, with a crescent shaped moon carrying the disc of the sun. This is typical of the sun worship that took place in the Sabean kingdom.

It is apparent that the Nabataeans had almost exclusive control of the frankincense route from 100 BC to 300 AD. During these four hundred years, they built an impressive economy, and expanded their trade base to include many of the trade items that were in demand in the Mediterranean region.

Chapter Eleven

Nabataean Economics

It has been accepted by historians that the Nabataean Kingdom was built on the basis of trade and economics, rather than a central political structure and the strength of a large army. Throughout the history of their empire, the Nabataeans engaged in trade, purchasing goods in Southern Arabia, India, and East Asia, transporting them by boat and camel caravan to the inner Nabataean Kingdom where they sold these goods to the Egyptians, Greeks, and Romans.

The Nabataeans did not transport one type of product, but rather, they transported a large variety of goods, including incenses, spices, precious stones and rare plants and animals. In the Middle East, the Nabataeans gained control of the bitumen trade and the copper trade, where they managed the mining and marketing of these products. In the incense business, however, they purchased their products from the southern Arabians. This allowed the kingdoms of Southern Arabia access to European gold, and consequently they were able to build significant civilizations in what are now the countries of Yemen and Oman. Arab and Nabataean traders also purchased goods from India and China, and, as a result, aided these nations in building significant civilizations as well.

The Nabataeans used a number of devices to help them monopolize their trading. On the Red Sea, their pirates all but stopped the Egyptians from sailing to Arabia and India. On the Mediterranean, their pirates robbed back the goods that they had sold to the Egyptians, who in turn were transporting and selling them to the Romans, thus allowing them to reap a double profit.

The Nabataeans also invented stories of how difficult and nearly impossible it was to obtain their products. These stories, including those of winged serpents, helped keep their customers happy with the high prices that the Nabataeans were charging.

Finances

In order to be successful at being middlemen, the Nabataeans had to control both ends of the trade business. They had to successfully manage the buying process, keeping their suppliers happy with the pittance that they paid for their goods. On the other end, the Nabataeans had to carefully control their selling price, getting whatever the market could bear.

Fortunately for the Nabataeans, incense was deemed a necessity in the Egyptian, Greek, Babylonian, and Roman worlds. It was needed for religious events, and religion controlled much of man's life at that time. Thousands upon thousands of temples and altars dotted the landscape and each one of them was a customer for Nabataean frankincense. Every wealthy home had its own private altars with each of these also requiring frankincense. Added to this, it was becoming increasingly popular to burn frankincense at Roman cremations. The Nabataeans were into a good thing.

Certain events, like those of a major war or the death of a high state official could put tremendous demand on the supply of incense products. When Roman generals went to war, they often offered sacrifices to their gods in order to obtain their favor. As time passed, these generals offered larger and larger amounts of incense, sometimes on

multiple altars in multiple temples, just to give them the edge in battle. The cost of these offerings was astounding, and the empire had to incur the cost.

Added to this, Roman households were becoming used to Asian spices, cloth and other goods. Herodotus, the historian, complained bitterly about Rome's trade deficit (100 million sesterces). He added, "So expensive are our luxuries and our women!" The Nabataeans, ever good businessmen, told the Romans about the high cost of purchasing and importing goods, and continued to invent stories about the great wealth that the foreign nations were gaining.

Agatharchides of Kindos, an Alexandrian scholar of the 2nd century BC, recorded some of what people were saying at the time.

"*No people appear to be wealthier than the Sabeans and Gerrheans (in NE Arabia and in the Arab Gulf), for they have piled up in their treasuries all the riches that they have gained from Europe and Asia. They are the ones that have made Ptolemy's Syria rich. It is they who have, amongst many other things, made it possible for the Phoenicians to make lucrative deals. Their luxury is not only displayed in marvelous embossed and engraved metal work and in the variety of their drinking vessels but in their beds and tripods, which are also unusually large. This luxury reaches its climax in the many house-hold objects which are known to us well. Many of these people own royal riches. It is said that they have numerous gold and silver columns, and the doors of their houses are decked with ornaments and jewels. Even the walls between the columns are said to be magnificently decorated.*"

And so, fables of fabulously wealthy cities in the deserts of Arabia started to spread. Ubar, Saba, and other places were rumored as being wealthy beyond measure. As a result of stories like these, the Romans looked upon the riches of southern Arabia with envy. Little did they realize that the kingdoms in southern Arabia were only profiting a little from the trade, and that the bulk of the price of these goods was being skimmed off by Nabataean merchants. These merchants lived modestly, many of them in tents or aboard ship. It was hard to imagine that they were making a killing on their products.

Today archeologists are uncovering the civilizations of Yemen and Oman. Amazingly enough, archaeologists have not discovered wonderful riches and fabulous treasure. Instead, these cities were regular trade centers, using the income from frankincense to build walls and obtain armaments, so that they could wage war against their neighbors. The incense trade kept them supplied with a regular income, but it was nothing like what the Romans imagined.

When the Romans realized how desperate their financial situation was getting, they launched the ill-fated attempt to reach the frankincense fields of Southern Yemen. This clearly demonstrates the financial importance that frankincense and the Nabataeans had on the Roman Empire.

As I demonstrated in earlier chapters, the Nabataeans did not limit themselves to trading in incense, but they expanded their trade goods to include all of the luxury items that the Romans desired. Their trade ventures took them farther and farther a field, until they were regularly visiting the coasts of Africa, Arabia, India, Ceylon, and eventually Indonesia and China.

Coins

It is possible to trace some of the economic ups and downs of the Nabataean Empire

by studying the mineral content of Nabataean coins. This will help us chart economic events in Nabataean history.

Around 60 BC the Nabataeans introduced their first coins. As with all new coinage, they had to establish the value of their currency, so they started with a silver content of around 97%. This made their coins of equal or greater value to those issued by Rome. They kept up this relatively high level of silver until 29 BC when the Romans dropped the silver content of their coins. The Nabataeans followed suit and dropped the percentage of silver in their coins to 62-75 % to match the Romans.

Then in 7 AD the Nabataean economy took a turn for the worse and the level of silver dropped drastically to 54 % and then sunk to the low of 20 percent in 50 AD. It remained at this level until 72 AD when it rose to 42.5 percent and stayed at this level until 78 AD. In 80 AD it dropped to the low of 20 percent and did not rise again. The Nabataeans stopped minting in 100 AD.

There is not a more sensitive instrument for evaluating an economic and political situation than the state of the currency, whether in ancient or in modern times. The high level of silver in Nabataean currency in the early years may be explained by their attempt to prove themselves an equal with the other civilized nations. In time however, the cost of creating an empire, and erecting cities such as Petra and Bostra created significant financial strains on the Nabataean Empire, and the level of silver in their currency dropped dramatically.

Aelius Gallus's campaign against the Southern Arabians in 24-25 BC had little effect on the Nabataean economy except for a 10% drop in the silver content.

As already mentioned, the big drop came in 7 AD. This may have been the topic of Strabo's statement about the change in fortunes of the Nabataean spice trade. (*Geography* XVI.2.24) Some have speculated that it must have been during this year that Roman boats began to make direct voyages to India, breaking the Nabataean monopoly on luxury eastern goods.

Some archeologists believe that the low economic period from 50 - 73 AD corresponds with the Nabataean's possible loss of control of part of the Negev, and some of their cities and routes to the Mediterranean. During this time, their markets began to shift from Damascus to the city of Palmyra.

The currency revived again under King Rabbel's emphasis on agriculture and dam construction, but the kingdom failed to revive, and it eventually gave into pressure to become a part of the Roman Empire.

Chapter Twelve

Nabataean Sites and Cities

As the Nabataeans gained control over the Frankincense Route, Nabataean villages sprang up at all of the important intersections along the trail. Many of these grew into cities in their own right. A few of these cities were located in Arabia, but the majority of them were located in the Negev and of course in southern Jordan. From their locations, we can deduce the importance of the port of Aila (Aqaba), and the trade routes connecting Aila with Alexandria, Gaza, and Damascus. The majority of Nabataean cities are located along these routes.

The number of these cities, their sizes, and the extent of the archeological finds in them, are sufficient that an entire volume would be needed to cover them all in detail. In this chapter, however, I have included the sites that I consider are worth visiting, and where notable discoveries have been made or significant ruins are located. Rather than try to deduce their importance, I have simply listed them in alphabetical order.

Aila (Aqaba)

The Nabataean port city of Aila was situated on the northern tip of the Red Sea, in the south of the inner Nabataean Empire. It served as one of the main sea ports for Nabataean trading ships that sailed to Southern Arabia, Eastern Africa, India, Ceylon, and China. From this port, the Via Traiana Roman roadway made its way up to Bostra, the northern capital of the Nabataeans.

The port itself was located east of the location of Solomon's port, but almost all evidence of the ancient port and city has been eradicated by modern urban development. Near the site of the ancient Nabataean port is the remains of the Byzantine Aila (beside the Mövenpick Hotel) and farther down the coast is a Turkish castle, which has been turned into a museum. There are other Roman ruins in Aqaba, including a Roman villa.

Farther inland, immediately north of Aqaba, there are two ancient sites known as Tell Magass and Hujeirat al-Ghuzlan. These have been earmarked for preservation, so that they are not destroyed as the modern city of Aqaba expands to the north. Around this area there are 31 Early Bronze Age sites, and 15 Nabataean sites.

Most of the food for this area was produced 80 kilometers north of Aila, near the modern village of al-Risha. An abundance of wheat is currently farmed within Qaa' es-Sa'idiyeen, and it is likely that the small Roman fort situated in the center of this area was later established to safeguard the local food production. Such produce could easily have been transported 80 km south for consumption at Aila. Apart from this, the fort is clearly associated with the mining of limestone along Jebal Khuraij to the west. North and east, along the mountains east of al-Risha and just north of Wadi Abu Barqa, there is evidence of early Nabataean activity associated with the collection/mining of the semi-precious stone garnet. This is evidenced by the presence of early Nabataean shards scattered around the site. An ancient road winds up the hill from the west, directly toward the ancient settlements. The road itself has been dated to the early Nabataean period by the discovery of a broken pot used during its construction. There is also some evidence of copper mining and smelting in this area north of Aila, but it is usually assigned to the Chalcolithic/Early Bronze Age.

Al Beidha

Al Beidha is situated only a few kilometers north of Petra, and is often called Little Petra. This miniature Petra is located in a large rock formation, with a short 'siq' entrance similar to Petra. Inside the center are tombs, dining halls, water cisterns, basins, and stairs leading up the mountainside.

There are several notable things about Al Beidha that the visitor should observe. First, the tomb to the right of the siq entrance is well preserved, and inside the tomb one can see notches in the wall where a wooden interior shelf was built, and where a door frame was fitted.

Inside of Al Beidha is a monument which still contains ancient painted plaster with pictures of leaves and people. It is a bit of a scramble, but it is well worth looking at. There are a number of reasonably well preserved dining halls and water cisterns in the center of Al Beidha. At the back of Al Beidha are stairs leading to a small boxed canyon at the rear. This canyon is closed at the ends, making it a perfect, hidden canyon and a wonderful place for a picnic lunch for the adventurous.

Around the outside of the mountain, to the south (left) of the siq entrance are the remains of a once thriving prehistoric village whose economy was based on cultivating semi-domesticated wheat and barley, substantiated by hunting and gathering. Experiments in cultivating potentially domesticable plants began in well-watered areas, but, once planted away from their natural wild stands, the plants needed constant care. The earliest settlement at Beidha began about 7,000 BC. The inhabitants lived in temporary huts with low mud walls that probably supported a light superstructure of branches and reeds. This camp was occupied while the first permanent stone buildings were under construction.

During the time that Beidha was occupied, true pottery had not been invented; that was to come 500 years later. The destruction by burning of the buildings in antiquity provides evidence for the use of prepared clay and experimentation in modeling small receptacles and human and animal figurines. Beidha was deserted about 6,500 BC never to be occupied again, but the site offers a fascinating glimpse of life in a village community on the edge of the fertile lands.

Bir Madhkur

Located near Wadi Namala, a principal route into Petra, Bir Madhkur was a major defensive structure situated in the foothills outside of Petra. Commanding the site of Bir Madhkur is a small castle, measuring just over 30 m square, with four corner towers. The castle is in an exceedingly ruinous state with much of the northern wall destroyed by local bulldozing and robbing of cut stone for use in modern buildings. The walls, two-courses wide, were constructed of worked limestone blocks.

Another structure, measuring about 30 x 25 meters, is situated on the bank of a dry wadi about 34 meters southeast of the fort. This second structure may have been a potter's house, used to produce pipes, tiles, and glass. The large mound of ash just beyond the south wall of the structure is most likely the result of pottery production. An excavation on the east wall produced large quantities of pottery shards as well as evidence that the exterior face of the wall had been plastered. West and southwest of the castle is an area of ruins that may have been a small village.

Another structure is situated about 18 meters south of the castle. It measures roughly

18 x 10 meters with roughly cut stone walls and an entrance into this structure along the west wall. There is evidence of at least six internal rooms.

Scholars are unsure of what this area may have been called in past history. Some have identified it as ancient Moa; others as Calamona of the Notitia. So, Bir Madhkur, despite many attempts to assign it an ancient place-name, remains uncertain.

Bostra

Bostra was the northern capital of the Nabataeans, located in southern Syria at the northern end of the Via Nova Traiana roadway.

When the Romans annexed the Nabataean Empire, Bostra became the capital of the new province of Arabia. From the 1st century BC and continuing for several centuries, this region saw unprecedented intensive settlement and development. At the end of the 1st century AD, Bostra constituted a 'second royal seat' of the Nabataean kingdom, after Petra, and remained the capital of the province of Arabia until the Islamic conquests.

Bostra contains many fine public buildings. There is a religious precinct consisting of three adjacent temples with connecting enclosures approached from the east by a paved road 300 meters long that ran under a monumental arch and past several structures. One temple is dedicated to Ba'al-Shamin, the second is a temple of Dushares, and the third is a temple to the image of Si'. Other monuments include a Nabataean arch, a circular colonnade, a vast tripartite hall, and numerous other public buildings.

Archeologists have also discovered a great deal of egg shell thin Nabataean pottery in and around Bostra.

Egra

Egra is a small Nabataean town in the Negev that grew out of a small road side station hosting caravans. Originally, the town had a military chiliarch and a centurion. Then suddenly in 27 AD other military administrative officers appeared on the scene. Then as agriculture grew to be more important, the city grew, and more people were added. Egra is also one of the few cities where Nabataean tombs are found.

A funerary inscription was found at Egra (27 AD) that said: "*This is a tomb made by Arwas, son of Farwan, for himself and for Farwan his father, hipparch, and for his wives Qainu and Hatibat and Hamilat, and for whoever produces a signed writ by the hand of Arwas or by his sisters Hatibat and Hamilat, daughters of Farwan the hipparch, only he may be buried in this tomb who has such a writ, only he may be justified in burying in this tomb. In the month of Nisan in the year thirty six of Aretas, King of the Nabataeans, who loves his people. Made by Aftah son of Abdobodat and Huru son of Uhayyu, sculptors.*"

At Egra, there are some seventy funerary monuments. One monument is dated by an inscription to 50 BC. It has one large chamber excavated at ground level, apparently for the burial of two persons. In addition, six niches of different lengths were cut into the walls at different heights. None of them is deep enough to contain a whole corpse. This is typical of most of the tombs in the area, as well as those at Petra. Another tomb has one large hall where three walls have troughs cut at their bottom. Each of these is subdivided by thin partition walls into twelve square compartments of 40 centimeters square. While some archeologists have thought that this might have been for the burial of children, others argue that children would never fit into a spot this small. Rather, burial of the

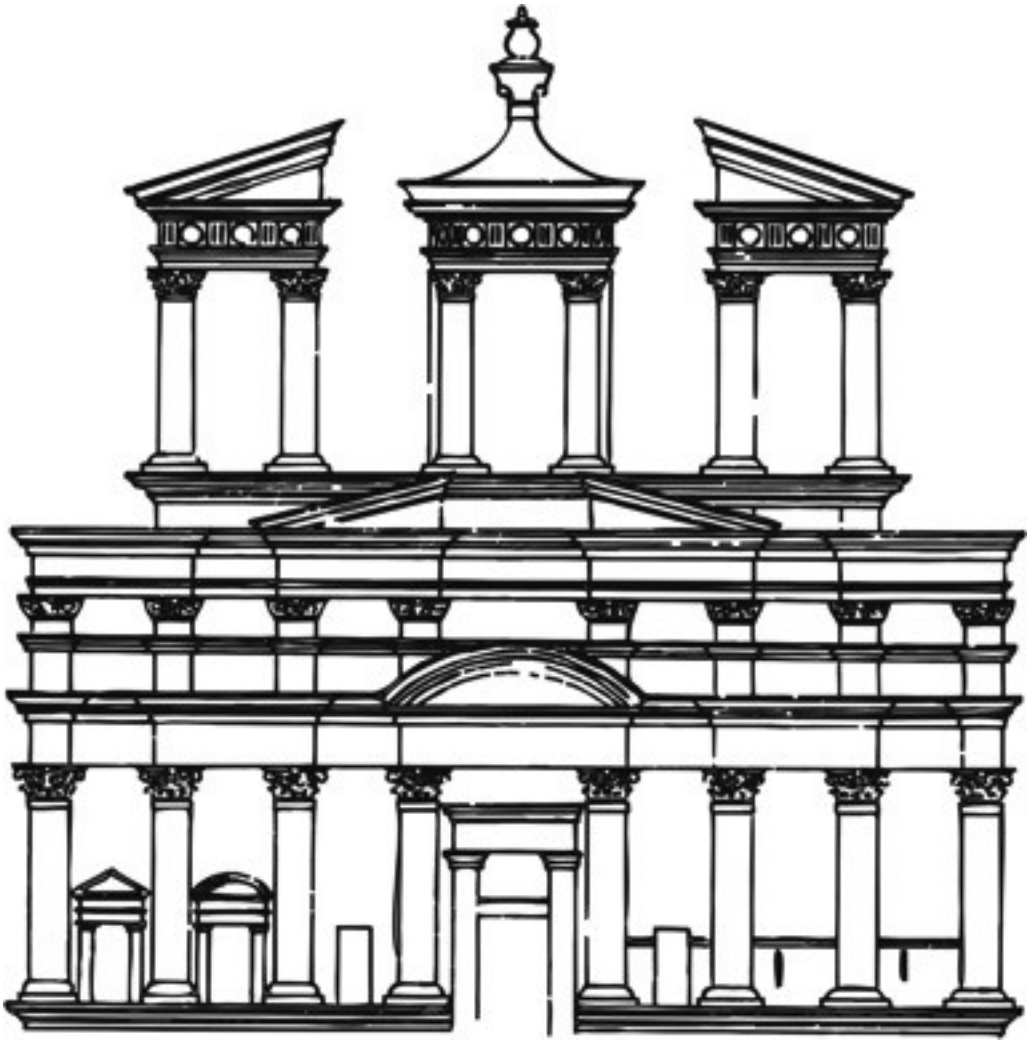
bones of the dead certainly would. More will be said about this tomb in the chapter on Nabataean burial practices.

Elusa

Elusa was possibly the Nabataean capital in the Negev. The Nabataeans based their occupation of the Negev on the triangle formed by the cities of Oboda, Elusa, and Nessana, by which they dominated both the caravan routes and communication with the neighboring state of Judea. In the early Nabataean period, these sites were just large campsites. Solid architecture dates from the first century BC.

Of these three cities, Elusa is closest to sea level. In the immediate area, there is only exposed chalk, so the Nabataeans transported stone from 5 - 6 kilometers away to construct their buildings. The hardest stone was always used for building the lower stories, and the lighter stone was used for the upper stories. The local chalk was not used as a building material until the Byzantine era. Roofs were built from arches, placed 80 to 100 centimeters from each other. Rooms had a maximum diameter of 6 meters, but there was no limit to their length. I have observed similar buildings in the mountains of Yemen where caravan stops were located at intervals along the caravan route.

The temperature in the south of Jordan and the Negev varies drastically. The hottest it gets is just over 40 degrees Celsius and the coldest months can be down to freezing. To provide protection, the Nabataean builders in Elusa used maximum insulation. Exterior walls were made of three layers. The outer shell consisted of well-polished stones that were laid dry and accurately fitted together to prevent as much as possible the penetration of moisture. The inner shell, facing the interior of the room was made of coarsely cut blocks of stone with a filling of small stones and mud in the joints. Between the two layers was a filling of quarry waste and mud that provided additional insulation.



The Corinthian Tomb in Petra

The interior of the room was then covered with several layers of plaster, beginning with mud plaster to fill the joints and cover the coarse face of the stone and ending with layers of finer plaster. The walls were then whitewashed with fine lime plaster to form a base for frescoes. Interior walls of courts were sometimes treated in the same way as the interior walls of living rooms. Insulation was also achieved by taking into consideration the size and number of windows. There were narrow windows on the outside and somewhat wider ones on the inside. These were placed at the tops of the walls, just below the ceiling. These windows, which resemble archer's slots, supplied air and light while preventing as much as possible the penetration of drafts and dust.

Doors were always made of wood set in wooden frames. Doors of living rooms always opened towards the south or west. Thus in winter, when the sun was low, the rooms were flooded by light through the open doors. In the summer, when the sun was high, the open doors let in the pleasant breeze coming from the sea most of the day, while avoiding the penetration of the sun's scorching rays. In some buildings at Oboda, Mampsis, and Sobata, everything except for the wooden doors was preserved intact and the buildings still serve as excellent shelters both in winter and summer.

Many Nabataean buildings had a staircase tower. Although the staircase tower was not a Nabataean invention, it became a customary feature of Nabataean sacred architecture in the middle Nabataean period and came into use in domestic architecture in the late Nabataean period.

Kitchens had one or two ovens and a stone workbench. A small platform in the courtyard was probably used for unloading standing donkeys or kneeling camels. Channels built against the walls brought running water in to the houses where it entered cisterns. The water probably came from nearby springs.

The city of Elusa lies in the easternmost area of the sand desert, with most of the city lying between two wadis. In the city, there was a series of towers used for defense, along the spine of the city, facing Nahal Besor to the south.

The East Church of Elusa is a huge cathedral, and one of the most beautifully adorned church buildings in the Holy Land. It is also the largest church in the Negev. As Christianity arrived, churches were built on the edge of Nabataean cities. As Christianity expanded, older buildings and temples were converted to churches.

The city also had a freestanding theatre, but since much of the city is covered under sand dunes, it has never been fully excavated.

Gaza

No one knows when the Nabataeans first arrived in Gaza, but Josephus tells us that by 100 BC Nabataean pirates were preying on shipping in the Mediterranean from this port. The Nabataean settlement was not in the main city of Gaza, but rather just south of the port at a place called Jenysos. This was also known as Gerar (present Jerar). (*Antiquities* xix 6,3; B.J.i.7,7 *Antiquities* xx.8.7; *Zephaniah* 2:5,6 and *2 Chronicles* 14:8-14)

Humeima

The Nabataean city of Humeima is located about 66 km north of Aila, (modern Aqaba). It is located on the *Via Nova Traiana* (Roman road) that leads from the city of Bostra in the north to Aila in the south, and lies at the meeting point where the caravans came from the Arabian desert and joined the highway going north.

The city was supplied with water from aqueducts that ran from springs located on the Naqab escarpment 27 kilometers away. On the north side of the city of Humeima a large Roman military fort was built during the Roman era. Several kilometers south and east of Humeima are the first watering locations for the desert caravans. In this area, there are seven or eight dams with water collection systems and cisterns, as well as many rock drawings and inscriptions. From this point the caravans traveled to Wadi Rumm for the next stopping point on their journey south to Arabia and Leuce Come.

Leuce Come

This Nabataean port was located along the Red Sea coast on the Arabian side. It was located just south of the beginning of the Gulf of Aqaba. Historians are not sure of its exact location. Chinese descriptions of the area place it 250 km south of Petra. The Periplus shipping manual informs us that the Nabataeans maintained a military fort and customs office at this location, charging a 25% customs tax on goods entering their kingdom.

Meda'in Saleh (Hegra)

This Nabataean center is located in Saudi Arabia, about 320 kilometers south of Petra. It is located 12 kilometers from Dedan (modern Al Ula), the ancient capital of the Thamuds and Lihyanites. It is interesting to notice that the Nabataeans preferred this sheltered location to the metropolis of Dedan. Most likely they were not very welcome by the Lihyanites, and lived outside of their city limits. This is similar to the situation at Selah where the Nabataeans were living just outside of the Edomite capital.

Around 65 BC, the Nabataeans absorbed the Lihyanite realm and Hegra became their southern capital. This center was well located, being at the crossroads of the caravan routes of Arabia, and also having limited access to the sea.

The general geology and appearance of Hegra is much like Petra, with sandstone mountains, cliffs, and desert. The center of Hegra was accessed by a narrow defile, about 15 meters in length that ran between two cliffs, forming a miniature *siq*, similar to the one at Al Beidha (Little Petra).

Inside, the siq opens into a wide area with tombs, inscriptions, water channels, cisterns, and inscriptions. On the hills are high places as well as locations for exposing the dead.

There are 131 tomb facades at Hegra, covering an area of 13.5 square kilometers. The area contains 32 inscriptions with dates ranging from 1 BC to 75 AD.

It seems that there were a limited number of places where Nabataeans buried their wealthy merchant dead. Petra was located in the Inner Kingdom; Egra was located in the Negev on the caravan route to Gaza; and Meda'in Saleh was located in Saudi Arabia which was on the caravan route to the kingdoms of southern Arabia.

When Rabbel II (71 - 106 AD) came to the throne at a very young age, with his mother acting as his regent, he made his capital in the city of Bostra. At this time, an attempted revolt took place in Hegra (Meda'in Saleh), led by Damasi, a member of a prominent Nabataean family. Several Safaitic texts indicate that the tribes of Daif, Saasikat, and Muhaarib were among those allied with the attempted rebellion.

Hegra contains numerous tombs with typical Nabataean facades, similar in style to those found in Petra. Along with this, there are traces of walls with square towers and guard posts to protect the approaches to the city.

Several of the tombs are incomplete, having been abandoned part way through construction. It is obvious that some of these were intended to be very large. Historians assume that construction stopped when the Romans took control of the area.

Mampsis

This city lies in the Eastern Negev near Wadi Mamshit. It is the eastern most Nabataean settlement in the Negev. The city probably started out as a small road side station hosting caravans, but as agriculture grew to be more important, the city grew, and more people were added.

In Mampsis, building blocks 2-4 meters long were used for the base of buildings and towers. These were cut from a quarry that was located on the other side of the wadi, requiring that the huge blocks be transported uphill. During the late Nabataean period smaller building stones were used.

In the regions of Oboda and Mampsis, there is a wide variety of stone for construction, ranging from the softest and lightest chalk to the hardest and heaviest

dolomite which is almost marble-like in quality. As a rule, the Nabataeans preferred the harder and more durable stone, which meant more and costlier work.

Sometime after the turn of the millennium, the Nabataeans built the city of Mampsis in the proper sense. This was at the beginning of a period when some archeologists think that the local Nabataeans began changing from running caravans to agriculture. While the agricultural history has not been worked out, it is quite certain that agriculture in the Negev began as late as 80 AD. Horse breeding was one of the major enterprises of the Nabataeans in the Negev and stables have been found in Mampsis, Oboda, and Sobata.

The city of Mampsis clearly demonstrates how Nabataean cities were built when the Nabataeans settled. It is one of the few Nabataean cities where urban houses have been excavated. The houses are gathered close together with the longest 'road' being a gully that drained through the center of town. It is interesting to notice that the public buildings, caravan center, reservoir, bathhouses, and temples were completely separated from the rest of town.

The houses were large. The smallest private dwelling in Mampsis covered an area of 700 square meters (7,535 square feet), and the largest was over 2,000 square meters (21,528 square feet). A palace, as it was named by archeologists, occupied an area of 1000 square meters (10,764 square feet), and a watch tower extended over an area of about 100 square meters. All these houses were two and sometimes three stories high, which added to the useable living space. From their construction, it seems that each of these houses was made to accommodate one family. Of course, wealth had much to do with the construction of dwellings of these dimensions, and their huge size is unique to Palestine.

In Mampsis, there was a shortage of trees of any size for construction and roofing. Although the plains are rich in brick-making materials, the Nabataeans never resorted to bricks, except in making the heating flues in bathhouses, so, they used stone.

The city also has several churches with baptismal fonts and mosaics. Archeologists have uncovered nearly fifty houses, a stable, and even a brothel.

Nessana

The history of Nessana in the Late Roman Period may be studied only from coins that come from the acropolis area (193 AD - 335 AD). The city has a church built on the highest part of the town, probably the site of an earlier Nabataean acropolis. The first excavations took place there in the 1930s when papyri manuscripts were found, dating from the Byzantine era.

Oasis of Feiran, Sinai

Diodorus gives an account of the early years of Nabataean life in the Sinai Peninsula. In II.42.1-5 he describes Nabataean life in the ancient oasis of Feiran, which the Nabataeans must have known by the biblical name of Paran. (Numbers 10:12, 12:16, 13:26, Deuteronomy 1:1, 33:2) It had a palm grove and a large Egyptian shrine. The description Diodorus gives us is of Nabataean life before they became totally involved in being merchants. During their years in the Feiran Oasis the Nabataeans people were occupied with cultivating date palms, weaving yarn, exploiting the copper and turquoise mines, hunting and perhaps engaging in some limited caravan trade. Diodorus describes that area as having many people, flocks, and herds. He implies that it was from Feiran

Oasis that the Nabataeans originally started pirating shipping on the Red Sea. (III.43.4)

Oboda (Avdat)

The ruins of Oboda (Avdat), the greatest Nabataean city in the Negev, lie on a limestone hill overlooking the desert in what is now southern Israel. These remains include two impressive Byzantine churches, a winepress, and many other interesting sites. The place is under the auspices of the Avdat National Park.

The city of Oboda was established as a road station along the frankincense route in the 3rd century BC. It was probably named after the Nabataean king Oboda I (Avdat). Oboda station was of great importance in Indo-Arabian commerce. It was positioned at a place where the ancient roads from Petra and Aila (Aqaba) converge into one and continue to the Mediterranean coast.

At the beginning of the 1st century BC the city was abandoned, probably as a result of the conquest of Alexander Jannaeus, who in 103 BC captured the Mediterranean coast and disrupted the caravan trade.

Some years later, the city was rebuilt by Nabataean King Avdat (Obodas) II. During his reign (30 BC to 9 BC), the Nabataeans began the transition from traders to farmers. Obodas was probably buried there and revered as a god. The Nabataean settlement reached its zenith during the rule of King Aretas IV (9 BC - 40 AD), when the city acropolis was fortified and a large temple built within it. A large pottery shop was built after the turn of the millennium in the eastern part of the city, which produced delicate, thin Nabataean pottery. By the middle of the 1st century AD Nabataean trade diminished, and the inhabitants turned to ranching and farming.

In the middle of the 3rd century, the Romans incorporated the former Nabataean Empire into a defense chain of the southern border of their Empire. Avdat, situated on this line, became a settlement for soldiers who received land in return for guaranteed military service in times of emergency. The new settlement was founded on the southern end of the Avdat hill, consisting of a number of well-built Roman villas. A temple dedicated to Zeus-Avdat was built on the acropolis. The remaining Nabataean population borrowed much from the religion of the Romans, while still revering their king Avdat as the Roman god Zeus. The Roman settlement apparently was short-lived, and lasted only for some half a century.

Oboda was resettled in the Byzantine Period, in the beginning of the 6th century AD. Its population accepted Christianity, and the city prospered. On the acropolis a large citadel, two churches, and a monastery were built. The settlement moved down to the western slopes of the mountain and people lived in houses constructed over rock-hewn caves. An intricate water-supply system was constructed, and wine was produced at several winepresses. The old agricultural areas were also extended.

When Byzantine power declined, the people of Avdat were no longer able to defend themselves from nomad incursions into their lands. This followed with conquests by the Persians in 614 and the Moslems in 634 partially destroying the city. In the 10th century, the city was finally abandoned.

Several buildings are of interest in Oboda. On the south side of some houses are typical Nabataean stables, consisting of a hall surmounted by four arches and of two narrow aisles. Each aisle is formed by a wall with a door and four arched windows. The horses stood in the aisles and the windowsills were hollowed out to serve as troughs.

In one house in Oboda, archeologists found a small room, open to the sky with a rectangular niche in the west wall. Under the niche was a barrel-vaulted chamber. It seems that the niche was for an image, where incense would have been burned on the flat top of the vaulted chamber under it.

This would help explain Strabo's statement: "*They worship the sun, building an altar on the top of the house, and pouring libations on it daily and burning frankincense*." (XVI.4.26) One house even had a flush toilet.

A Nabataean potter's workshop was also discovered at Oboda, and used between 25 BC and 50 AD. In 80 AD it seems King Rabble gave orders for the construction of dams and farms.

The northern church was built on the site of a pagan Nabataean temple. The gate of the temple and the sacrificial stone remained in their place before the entrance to the church. It is likely that the region's bishop officiated in the northern church. Three stairs in the apse were the base of a special chair for the bishop. The priests sat in a semicircle behind him. There are two baptismal fonts in the northern church: a large cross-shaped font was for adults, and a smaller round one with was for babies.

From the church, stairs lead to the lower city, the main dwelling place during the Byzantine period. What remains of it today are hundreds of caves along the slope, some of them residential, others used as storerooms, and some as burial caves. It is estimated that several thousand people once lived in the city. Oboda was very crowded and the hills and caves were terraced up and down so that space could be used efficiently. People first dug these caves to live in and then the better-off added porches or built stone houses above.

A splendid Roman bathhouse is located at the bottom the hill. To get water for this bathhouse, a well, over 60 meters deep was constructed. Today, near the bathhouse, at the lower parking lot, there is a Nabataean information center where visitors can see a film about Nabataeans and view archaeological finds from the site.

Across the road from the cliff of modern Avdat, there is an experimental farm for the research of ancient agriculture methods. It was established in 1959 by the Hebrew University. The farm is based on 2000-year old irrigation techniques widely used by Nabataeans.

Rekem (Petra)

Petra is the best known of all of the Nabataean cities. Today thousands of tourists visit this site and stare in awe at the huge funerary monuments. While there are over 1000 monuments in Petra, there is no record of who made most of them. In the Nabataean city of Egra however, there are many monuments made for upper class family, and many are signed by the artists. They called themselves 'Amana,' in the detailed inscriptions on the facades of almost half of the monuments. It is interesting to notice that the builders of the monuments were most probably Nabataeans, not imported laborers.

Some people believe that at its height, Petra would have had a population of 20,000 - 30,000 people. Others believe that Petra was mostly a city of the dead and religious ceremonies. Certainly, it was a huge religious center, with several temples, as well as a festival theater, a nymphaeum, a bathhouse, a sacred way, a monumental gate, pools, and several other pubic buildings. These temples and other public buildings occupied the central valley, where the Royal Tombs were situated. Later a number of churches were

built in Petra. Three of these have been excavated and are close together on the north slope above the colonnaded street.

The citizens of Petra lived in crowded conditions, in houses bunched on the north and south slopes above the colonnade street. Many of these people would have been gravediggers, monument sculptors, temple attendants, and others involved in service trades. Initially the city also contained the Royal family and members of the ruling class, at least until the capital was moved to Bostra in the north.

Some historians believe that at least once a year, and most probably twice a year, Petra held a huge festival. During this time, Petra needed to accommodate the many thousands of Nabataean pilgrims that made their way to their city. While no one knows how many people came at any one time, we can deduce the names of many of the pilgrims who wrote their names on rocks and canyon walls during their pilgrimage.

During the festival some historians feel that the pilgrims visited the graves of their ancestors and ate or drank something in remembrance of the dead. These things will be examined more in detail in the chapter dealing with Nabataean Burial Customs.

Many excellent books have been written about Petra, and a number of Internet sites have excellent pictures and descriptions of the Petra monuments. One of the best sites is Nabataea.Net found on the Internet at http://nabataea.net. And of course, plan to visit this wonderful ancient city yourself. Needless to say, Petra is the most impressive and significant Nabataean center.

Ruheiba

This city is about 12 km south of Elusa in the Negev and has only been partly explored. It has three large churches, including one with an underground crypt. Several very deep wells (80 m) were hand dug in this city. The city is located in a nature conservation area and can only be visited by agreement of the authorities.

Selah

For many centuries, archeologists and historians have assumed that ancient Selah was Petra. Recent archeological discoveries, however, have caused some historians to question this assumption.

Several kilometers south of the modern town of Tafila, is the mountain top plateau known as Selah. This area is much closer to the description that ancient historians give us of the very first Nabataean capital. Along with this, Selah seems to fit the Old Testament record where Amaziah of Judah took 10,000 Edomites as prisoners and threw them from the summit of Selah. Since the ancient Edomite capital is only a couple of kilometers away, more and more scholars are now thinking that modern Selah was the site of this event, and not Um al Biyara in the center of Petra.

In addition, ancient historians mention that when Antigonus, The One-Eye attacked the Nabataeans at Selah, the Nabataeans had stored their belongings on the cliff top and were away at a local market. There were few local markets close to Petra. Selah however is different. The Nabataeans, whom Diodorus claims probably only numbered 10,000 at this location, would have stashed their goods on the mountaintop, and have gone to Busheira, the major Edomite capital only a few kilometers away. They returned only one hour after the army had made off with their goods, and soon were in pursuit.

The most telling evidence is that Diodorus places this battle only thirty four miles

from the Dead Sea, not the one hundred miles that Petra is. Therefore, the battle most likely took place at Jebal Selah near Busheira.

Another indication that Selah was their capital, not Petra, can be taken from Strabo's description of the Nabataean homeland. He writes: "*Their homes through the use of stone, are costly, but on account of peace, their cities are not walled.*" Petra on the other hand was walled, and contained more than 250 acres inside the city walls.

Strabo (XVI.4.26) also writes: "*The metropolis of the Nabataeans is Selah, as it is called, for it lies on a site which is otherwise smooth and level, but it is fortified all around by rock, the outside part of the site being precipitous and sheer, and the inside parts having springs in abundance, both for domestic use and watering gardens*." This is hardly a description of Petra but it might describe the hills and cliffs around Selah.

Strabo goes on to state: "*Most of the country is well supplied with fruits except the olive; they use sesame oil instead*" (XVI.4.21). This is a definite description of the area around Tafila, stretching north to southern Moab or to southern Auranitis, both of which were occupied by the Nabataeans in this period.

Where does this leave Petra? Evidence now shows that major construction in Petra probably didn't begin until as late as 85 BC, and even then the city seems to have been designed as an elaborate graveyard and religious center, and was the destination of many Nabataean pilgrims, rather than a social and economic center.

Sobata

This center probably started out as small roadside station hosting caravans. As agriculture grew to be more important, the city grew, and more people were added. This location is known as Shivta in Hebrew, and is located about forty kilometers south east of Beersheba. The region has very low humidity and this has helped preserve many of the ruins.

The city extends over an area of 81,000 square meters but it seems to never have had a city wall. The external walls of the houses at the edge of the settlement formed a closed stone shell, with only a few access points.

The city had several churches, a communal winepress, large animal enclosures, and a number of larger buildings. There is also an inscription mentioning King Aretas IV, meaning that it must have dated from after the turn of the millennium. As far as I know, no excavations have currently been made of the Nabataean part of the town except for a house with two stables near the double reservoir.

Tawilan

This site is situated in the hills near Petra. For many years, Tawilan was thought to be a very important Edomite site, dating from the 13-6th centuries BC. It was identified with biblical Teman and regarded as one of the most important Edomite centers.

Excavations of this site, however, revealed an unfortified agricultural village that thrived in 7th century BC. In 1982, the first cuneiform tablet ever discovered in Jordan was found in Tawilan. This was a legal document dealing with the sale of livestock. It was written in Harran in north Syria in the accession year of the Persian king named Darius. The first large quantity of gold jewelry from Jordan, dating to the 10th-9th centuries BC was also discovered there.

Tawilan was later re-used as a cemetery in the Roman period, and was certainly not

an important center at any time. There are no traces of occupation between the 13th and 8th centuries BC. The biblical Teman is now thought to refer to a region of Edom and not a particular site.

Udhruh

Udhruh is an oasis on the western edge of the Jordanian desert, which attracted settlement throughout antiquity. A perennial spring was used to irrigate a fertile plain. Stone tools suggest that prehistoric man appreciated this well-watered oasis. A dense scatter of Neolithic tools and flakes outside the later town indicate that a pre-pottery Neolithic settlement could have existed there. Bronze Age ceramics show a continuity of occupation on the site and Late Iron Age walls have been found.

Excavations have shown that there was a sizeable Nabataean settlement at Udhruh, along with a pottery production center. When the Roman army constructed the Via Nova Traiana past Udhruh it became a walled frontier town and military garrison. Those town walls still stand today. Each corner of the walls has a horseshoe-shaped projecting tower and there are four gateways mid-way down each wall as well as several postern passages. Within these walls are the remains of successive Roman, Byzantine, and Islamic towns.

Udhruh is mentioned by the geographer Ptolemy in the second century AD as a town in Arabia Petraea. The next references to the site occur in the 6th century AD when it was probably the richest town in Southern Palestine paying the highest city tax. In AD 658, 26 years after the death of the Prophet Mohammed, Udhruh was the scene of a historic conference between representatives of Mohammed's son-in-law, Ali, and of the Governor of Syria, Mu'awiya ibn abi Sufyan. The outcome of this conference was the establishment in Damascus of the Umayyad dynasty by Mu'awiya.

In the 10th century AD, ‘a monk of Udhruh’ is recorded in a manuscript and the town continues to be mentioned by geographers in the later Islamic centuries. The Ottoman fort represents the last period of occupation before the present village was built, probably in the late 1930s.

Um al Biyara

Um Al Biyara is one of the highest mesas within the Petra Mountains. The top of this mountain is flat, but sloping towards the east. Several years ago archeologists excavated the settlements at the top of the mountain to try to discover if Umm al-Biyara was the biblical Selah. The Old Testament records that Amaziah of Judah took 10,000 Edomites captives and threw them from the summit of Selah. The excavations, however, found no evidence to support this identification.

The settlement was a group of dry-stone houses with long corridor rooms, flanked by small square rooms. The main area was destroyed by fire. In one room a seal was found bearing the name of Qos-Gabr, king of Edom. Qos-Gabr is known from Assyrian inscriptions dating to the early 7th century BC.

Um Jemal

This city is located east of the modern city of Mafraq in Jordan, and was located on the junction of the north/south caravan route with the east/west (to Baghdad) route. It probably started out as small roadside station hosting caravans. As agriculture grew to be more important, the city grew. During the Byzantine era a great deal of building activity

took place at this center, and much of the Nabataean aspects of the city were wiped out, except for the water cisterns and water collection systems, and the buildings in the small village of Herri.

Wadi Faynan

Wadi Faynan, near modern day Tafila in Jordan, has long been known for its remarkably extensive archaeological evidence indicating a long occupation from prehistoric to recent times. The evidence included settlement and burial sites from the Pre-Pottery Neolithic to Islamic periods, dominated by the major site of Khirbet Faynan, which was occupied during Nabataean, Roman, and Byzantine periods.

The area has complex field systems running along the south side of the wadi floor for several kilometers, and is extremely rich in minerals. Ancient mining slags cover large areas of the landscape and have even entered into the river system where they now produce distinctive copper-rich gravel.

Wadi Rumm

Wadi Rumm is a favorite tourist spot for those wishing to see the wonders of the Jordanian mountains and desert. However, Wadi Rumm was also part of the ancient caravan route that extended between Meda'in Saleh and Petra. The modern town of Wadi Rumm is located at the base of Rumm Mountain where springs provide water for the town and orchards. At the base of the mountain is a ruined Nabataean temple and accompanying buildings. The general area also contains many instances of graffiti and rock drawings.

Ubar

Today some associate Ubar with a caravansary at Wadi Shisr in Oman. For many years Ubar was lost to the outside world, until researchers used satellite photos to reveal the ancient caravan trails. These trails seemed to merge at the Shisr oasis, in Dhofar, Oman's southernmost province. on the edge of the *Rub al-Khal*i, known as the Empty Quarter of Arabia. Zealous newspaper reporters announced to the world that Ubar had been found, even though the archeologists had made no statements. To read more about the problems and doubts surrounding this archeological site check http://nabataea.net/shisr.html

Chapter Thirteen

Nabataean Defenses

Originally, the Nabataeans were nomads, merchants, and pirates. It is doubtful that they had it in mind that they were going to build a kingdom. Most of the early Nabataean sites are located near other cities, and along the caravan routes of the Middle East. The remaining sites are located near seaports such as Aila, Gaza, and the Oasis of Feiran in the Sinai.

In time, as the Edomites moved northwards, the Nabataeans gained greater and greater control of the old Edomite Empire. The borders of this area form what we will call the Inner Nabataean Kingdom. In order to defend this area, the Nabataeans relied on a number of different techniques and strategies.

Natural Boundaries

Three of the Inner Kingdom's borders were natural cliffs that could be easily defended with a line of forts. These borders are clearly recorded in the Bible as the borders of Edom. (Numbers 20:25)

The northern border of the Inner Kingdom was located at Wadi Hasa. (Numbers 21:13) This wadi is very deep with the deepest parts reaching below sea level. Along the top of the escarpment were a series of fortresses that aided in the defense of this border. Since this border was close to the Edomite capital of Busheira and the later Nabataean capital of Selah, reinforcements could quickly be called up.

On the southern edge of the Inner Kingdom is a huge escarpment or cliff that runs for many miles out into the desert. Along the top of this cliff are many ancient fortifications, most of them dating from Edomite times or earlier. The Nabataeans, and later the Romans, also used this same cliff and line of fortresses as their southern border. (Numbers 21:4)

On the western side of the Inner Kingdom were the mountains and cliffs of Wadi Arabah. These mountains and cliffs were easily defended by placing fortifications and watchtowers in each of the passes.

Thus, the Nabataean Kingdom had three natural boundaries: Wadi Hasa to the north, Wadi Arabah to the west and the cliffs of Naqab to the south. On the eastern frontier lay the desert, and this posed a problem for every civilization that occupied this region; for from the desert came raiding groups, such as the Midianites, who could sweep into the hill country, rob and pillage, and drive off herds of sheep and goats.

The Ancient Wall of Arabia

Sometime back in history, someone living in this same area as the Nabataean Inner Kingdom decided to do something about the desert raids. Their solution was brilliant. Forts were constructed on hilltops, each within sight of the other. Between the forts, a small wall was constructed, perhaps a meter or a meter and a half in height. The wall was very rough, with no foundation, and consisting only of boulders piled one on top of the other. Certainly raiding tribes originally regarded the wall with disdain. It could easily be knocked over, and the raiders could sweep into or out of the walled-in area.

This wall is known today as the *Khatt Shebib*. It was named by the Bedouins who

erroneously called it after the Arab ruler Amir Shebib, who tried settling the Bedouin in the 10th century AD. Since we know of no other name, we can simply call it the *Arab Wall*. It starts in the north near Wadi Hasa, and sweeps in a gentle curve south and east until it reaches the Naqab Escarpment. Altogether, it is approximately 100 kilometers from the north end to the south end, although many portions of it have been destroyed by encroaching farmland and settlements. Sometimes a parallel wall or walls run east, or west of the original wall, creating yet another barrier for raiding parties to cross. Inside the wall were the wells, springs, crops, and herds of the settled people. Outside the wall were the barren hills and deserts of the nomads, with no water for many miles. Only the desert oasis of Ma'an and Jafr contained any sizable water resource outside the walls. It is generally assumed that these oases were the gathering centers for the desert tribes who wished to raid on the settled lands. The Nabataeans and later the Romans built fortifications at these oases to hinder the desert raiders even more.

Desert raiding required three things: a stealthy entry, a quick grab, and then a very quick getaway. The main concern was getting away before the local inhabitants cut off escape. The Arabian Wall was a brilliant defense against these raids.

Along the wall were towers with small groups of watchmen. Some towers were so small that only one or two men could have been stationed there. These men watched during the day, and listened to the ground during the night. They would either see or hear any raiders who were carefully trying to cross into their lands. Once the raiders were spotted, smoke or flare alarms could be set off. Then, whatever walls were thrown down by the raiders could be quickly piled back up by the guards after the raiders had passed through.

Once the raiders were in the settled lands, they would sweep down on unsuspecting farmers and herders. However, if the guards on the wall saw or heard the raiders as they crossed the frontier, warning fires and smoke signals could easily be sent up by the towers on either side of the break-in point so everyone could tell exactly where the raiders had entered the Inner Kingdom.

The raiders would then be forced to quickly grab whatever they could and rush back into the desert. Desperately driving herds of sheep and goats they would again head back to the wall, only this time, they would have to stop and re-knock the hole in the wall that the watchmen had piled back up, while watch towers on either side of them would be sending up signal fires, directing any pursuers to the exact spot.

Once the Nabataeans controlled the area, they stationed cavalrymen at locations along the wall who could quickly descend on the escaping raiders and retrieve the plunder.

At various intervals along the wall, there are Nabataean cavalry stations. Such a station exists two and a half kilometers east of modern day Abu Lissan. At this site, there are a number of Nabataean-styled barrack buildings and a large number of animal enclosures, etc. The cavalry from this station could be deployed east and west whenever a raiding party tried to enter the Nabataean Kingdom.

Earlier, we discussed in chapter two how the Nabataeans used a similar tactic when Demetrius-the-Besieger, the son of Antigonus attacked the Nabataeans. The Nabataeans set off fire signals that flashed from mountain to mountain forewarning the Nabataean populace of the location of the attacking army.

In surveying the wall, it is amazing to discover how it stretches for miles and miles

across the frontier. Because it was built of loose fieldstones, there is no way to tell exactly who first constructed the wall. However, to this day, this wall stands as a witness of the ingenuity of the people of that region and as one of the least known, yet amazing structures in the Middle East.

In AD 106, the Romans occupied the Nabataean Empire, and the Inner Kingdom became part of the province of Arabia in the Roman Empire. At this time, Roman soldiers and engineers toured the entire Nabataean Empire, and one of the notable things they would have studied was this ancient wall.

It is interesting to note that only sixteen years later the Romans themselves began to build a wall to slow barbarian raids on the northern border of their Province of Britain. This wall was built in a very similar style, except that the Roman engineers built it to Roman standards, with a forward defensive ditch, sixteen forts, and 80 mile-castles, each one built one mile apart. The Roman wall was built of cut stone, and was much higher and stronger than the Arabian Wall. The Romans also built similar walls in North Africa and Germany (the Limes) to keep out raiders.

The Roman wall in England was built in AD 122 - 128 on the orders of Emperor Hadrian, and today is known as Hadrian's Wall. It is interesting to note that Emperor Hadrian visited the Petra Province in 130 AD on his grand tour of the eastern Roman Empire, and it was he who gave the city of Petra his name, Petra Hadriana.

Cavalry

Another facet of the Nabataean defense was their use of cavalry. They had both camel and horse cavalries, but in the end, horse cavalries were by far more common. Camels were kept for caravan work.

It seems that the Nabataeans had a poor reputation as warriors among both ancient and modern historians. However, the Nabataeans did win their fair share of battles.

In 87 BC the Nabataeans fielded 10,000 cavalry and defeated the Seleucid ruler, Antiochus XII. The Nabataean king, Aretas II, then took control of Damascus and Syria.

Twenty two years later, in 65 BC, Aretas III sent 50,000 horsemen as well as infantry units to support the Jewish prince Hyranus II who was contesting his brother for the throne of the royal house of Judea. The Nabataean army pressed the siege of Jerusalem so vigorously that the Roman envoy Scaurus intervened in the dispute and ordered the Nabataeans to withdraw or be declared an enemy of Rome. The Nabataeans withdrew, as Rome was their principle trading partner. Isolating themselves from Rome would have caused the end of their lucrative trading business.

Relief of a Nabataean Cavalryman with his horse, as found in the foundation stones of the crusader castle in Kerak. The stone was borrowed from an older Nabataean structure and incorporated into the castle.

Where did the Nabataeans obtain so many horses? Archeological evidence has now surfaced in Safaitic texts that provide evidence of extensive horse-breeding throughout the empire, especially in the Hauran region. At present there is not a great deal of proof about what type of horses the Nabataeans bred, but by carefully analyzing the historical records we can learn some of the characteristics of these horses.

Nabataean horses were known to be swift, light, and very intelligent. The Romans preferred horses that could carry heavily armored and armed men into battle, and that were not terribly bright. This gave them the edge, as often their horses did not sense danger until it hit them. The Nabataeans on the other hand preferred fast horses that could, in the words of Diodorus "*... flee into the desert, using this as a stronghold.*" These horses sound much like the famed Arabian breed of horses.

No one is sure when Arabian horses first appeared. Domestic horses were first introduced into Babylonia about 2000 BC and into Egypt approximately 300 years later. Egyptian and Babylonian horses were the forerunners of Arabian breeds of the Middle East. Another strain of horses appears to have been domesticated in Europe, and some believe that a third ancestral strain, found in the British Isles, was the prototype of the various breeds of modern ponies.

Compared to European horses, Arabian horses were small but were fast and had remarkable powers of endurance. They were also prized for their beauty, intelligence, and gentleness. Arabian horses usually have only 23 vertebrae while the European horses have 24. Their average height was about 15 hands (60 inches, or 152 cm), and their average weight ranged from 800 to 1,000 pounds (360 to 450 kg). They were also noted

for having strong legs and fine hooves. Their coat, tail, and mane were of fine, silky hair. Although many colors are possible in the breed, gray prevails.

The breed's long history has been obscured by legend. Many recognize them as the oldest known breed of horse in the world, and their roots travel back to the time of the Roman Empire, but beyond this, their history is unsure.

Some historians think that the breed possibly originated from the horses of the Hittites of Anatolia and Syria. A legend exists that the Arabians were first bred in the time of King David of Israel. Whatever their origin, the Bedouin tribes of the Arabian Peninsula have carefully controlled the breeding practices of these horses for centuries in order to maintain pure lines. While we may never have proof, it certainly seems that the Nabataeans were part of the chain of Arabs carefully breeding Arabian horses.

Roman historians tell us that after 106 AD, when the Romans annexed the Nabataean Empire, the Nabataean cavalry units proved to be undisciplined and a poor accompaniment for the well structured, disciplined Roman army. At this point, it seems that the Arabian horse disappears back into obscurity.

Deception

Every visitor to Petra is confronted with the rugged mountains that make up the Petra Archeological Park. Tour guides often tell stories about the inaccessibility of Petra, except through the siq, a narrow crack in the wall of a canyon. Tourists stare in awe and snap picture after picture of the walls of the siq. Most return to their home countries convinced that they have visited an amazing city, surrounded by impregnable walls of natural rock, where a handful of men could defend an entire city, by standing guard in the siq.

It seems that the Nabataeans also liked this idea, and allowed the story to spread far and wide. Their city was so firmly protected by this notion that the armies of the Greeks, Romans, and Byzantines never marched against them.

The truth of the matter is, however, that a small number of attackers could hold the siq and cut off the water channels flowing into the city, reversing the usefulness of the siq. But then again, the siq is only an illusion, for the backside of Petra opens into a wide valley that is easily accessed from either end.

Secondly, the Nabataeans enjoyed the rumor that their source of trade lay across a vast expanse of waterless desert where others could never travel. They carefully hid the fact that much of their trade was conducted by boats. Even the Romans, who tried to force the Nabataeans to disclose the source of frankincense and myrrh, allowed their armies to be led by Nabataean guides into the deserts of Arabia where they died from thirst, disease, hunger, and exposure.

Arab traders artfully withheld the true source of their spices. To satisfy the curious, to protect their markets, and to discourage competitors, they spread fantastic tales to the effect that incense trees grew in shallow lakes guarded by winged animals and that cinnamon grew in deep glens infested with poisonous snakes. Pliny the Elder (AD 23-79) recorded some of the stories, but openly ridiculed them and boldly declared that "*all these tales, however, have been evidently invented for the purpose of enhancing the price of these commodities.*" Truly, the Nabataeans were masters of deception, and on many occasions, they used this as one of their means of defense.

The Nabataeans seemed to enjoy telling tall tales. It seems that most people living

during the time of the Nabataeans had a healthy dose of fear and gullibility. Because their education and experience was so limited, most people readily believed the legends and stories that circulated. The Nabataeans capitalized on this by creating stories about the hazards of obtaining incense and spices. This readily discouraged others from trying to obtain it. Along with this, the Nabataeans invented many other stories, some of which were recorded by early historians.

For example, Herodotus writes (The Histories, Book III): "T*here is a great river in Arabia, called the Corys, which empties itself into the Erythraean sea. The Arabian king, they say, made a pipe of the skins of oxen and other beasts, reaching from this river all the way to the desert, and so brought the water to certain cisterns which he had dug in the desert to receive it. It is a twelve days' journey from the river to this desert tract. And the water, they say, was brought through three different pipes to three separate places…"*

"… frankincense trees which bear the frankincense are guarded by winged serpents, small in size, and of varied colors, whereof vast numbers hang about every tree. They are of the same kind as the serpents that invade Egypt; and there is nothing but the smoke of the styrax which will drive them from the trees. The Arabians say that the whole world would swarm with these serpents, if they were not kept in check in the way in which I know that vipers are.

Such, then, is the way in which the Arabians obtain their frankincense; their manner of collecting the cassia (frankincense) is the following: They cover all their body and their face with the hides of oxen and other skins, leaving only holes for the eyes, and thus protected go in search of the cassia, which grows in a lake of no great depth. All round the shores and in the lake itself there dwell a number of winged animals, much resembling bats, which screech horribly, and are very valiant. These creatures they must keep from their eyes all the while that they gather the cassia.

Still more wonderful is the mode in which they collect the cinnamon. Where the wood grows, and what country produces it, they cannot tell—only some, following probability, relate that it comes from the country in which Bacchus was brought up. Great birds, they say, bring the sticks which we Greeks, taking the word from the Phoenicians, call cinnamon, and carry them up into the air to make their nests. These are fastened with a sort of mud to a sheer face of rock, where no foot of man is able to climb.

So the Arabians, to get the cinnamon, use the following artifice. They cut all the oxen and asses and beasts of burden that die in their land into large pieces, which they carry with them into those regions, and place near the nests: then they withdraw to a distance, and the old birds, swooping down, seize the pieces of meat and fly with them up to their nests; which, not being able to support the weight, break off and fall to the ground. Hereupon the Arabians return and collect the cinnamon, which is afterwards carried from Arabia into other countries. Concerning the spices of Arabia let no more be said. The whole country is scented with them, and exhales an odor marvelously sweet.

There are also in Arabia two kinds of sheep worthy of admiration, the like of which is nowhere else to be seen; the one kind has long tails, not less than three cubits in length, which, if they were allowed to trail on the ground, would be bruised and fall into sores. As it is, all the shepherds know enough of carpentering to make little trucks for their sheep's tails. The trucks are placed under the tails, each sheep having one to himself, and the tails are then tied down upon them. The other kind has a broad tail,

which is a cubit across sometimes…" Strabo: Geography, Book XVI)

I find it amazing that Herodotus and Strabo bothered to write these stories down, as they are obviously total lies. One wonders how gullible people were at that time. It seems that the Nabataeans were safe as long as people continued to believe the stories they spun.

Alliances and Diplomacy

During the time of Sennacherib of Assyria's reign, we first hear of the Nabataeans. At that time, it seems that they were in alliance with the Hagarites and the Qedarites and in rebellion with the Assyrians. After leaving Assyria, the Nabataeans seem to have had alliances with the various tribes in the Arabian Peninsula, for when they entered Edom at the time of the Babylonian captivity, they seem to enter together with the Qedarites.

All down through history the Nabataeans seemed to prefer alliances, diplomacy, and deception to outright confrontation. This desire not to fight probably was the source of the surrounding nations feeling that they were poor soldiers, and even cowards.

An example of their diplomatic efforts is demonstrated in the event that I mentioned in chapter two. Following Antigonus The One-Eye's attempts to take Selah, the Nabataeans send a letter of protest, and later gifts. This action set the pattern for their preferring to deal with their powerful neighbors through diplomacy rather than confrontation, and from this point on they sent letters and ambassadors to the rulers of the great powers of the world.

Bribes

It seems that the Nabataeans were quite quick to offer a bribe when the opportunity arose. For example, when Antigonus thought that the Nabataeans had forgotten his first attack, he launched a second attack. As soon as Nabataean spies sighted Demetrius' troops, the Nabataeans deposited what they could not carry, and then gathered up the rest of their possessions, and fled into the desert. Demetrius failed to take Selah and when he was wondering what to do, the Nabataeans came up with an easy solution. Demetrius allowed himself to be bought off with costly presents and returned home. Having been successful at buying off their first army, the Nabataeans used this technique on several other occasions.

One example occurred in 62 BC, when Marus Aemilius Scaurus marched against the wealthy Nabataeans, but war was averted when he accepted 300 talents of silver. It seems that in the years after this event, several Roman generals threatened to attack the Nabataeans. In each case, they eagerly accepted the bribes that the Nabataeans offered, and from the historical records it seems that this became the norm for Roman generals who wished to improve their personal finances.

Navy

As we mentioned earlier, the Nabataeans maintained a fleet of ships for sailing to the east. As several historians have mentioned, groups of Nabataeans engaged in piracy on the Red Sea based out of Aila, and on the Mediterranean Sea based out of Gaza. They were engaged on the Red Sea by Egyptian quadriremes and several boats were lost, but it seems that a few years later they managed to stop all trade on the Red Sea, except their own. Their maritime power was such that later they were able to defeat Cleopatra's navy.

On the Mediterranean Sea, they were such a menace, that Alexander Jannaeus marched against them, and seized the port of Gaza, putting them temporarily out of business. After this, it seems that Nabataeans restricted their navy to merchant activity, as Nabataean boats regularly called at most ports on the Mediterranean and Persian Gulf for many years following.

Chapter Fourteen

The Nabataean Pantheon

As I have studied the Nabataean religion, it has become obvious that archeologists engage in a lot of guesswork when interpreting their finds. As very little written material has passed down to us (except for the Petra Scrolls, and the Cave of Scrolls, which date from the Christian era), historians must interpret their ideas from the ruins and statues that they find. Then they compare these interpretations with what is commonly found in other, better known civilizations and thus they come to their conclusions.

However, the Nabataeans don't necessarily fit with the way other civilizations thought or operated and so it is difficult for historians to accurately decide what they believed.

Stone Block Gods

In the Greco-Roman world as well as the Parthian East, people have always accorded the gods with human form. Those of us who studied Greek mythology in school should know a little of how human the gods seemed to be. The Nabataeans on the other hand represented their gods in the form of stelae. These stelae could take the form of rocks set upon end, blocks, or shapes carved into a stone wall, or elaborately carved square djin blocks set up at the entrance to their cities.

There are several excellent examples of djin rocks across from the Obelisk tomb, at the entrance to Petra. Visitors should be sure to stop and see these rocks, as they may be the equivalent to Nabataean idols. Along the siq that leads into Petra, smaller blocks are carved into the walls of the siq. Throughout Petra and on the road to Al Beidha other stelae can be seen carved into the walls of the mountains.

Maximus of Tyre comments in his book *Philosophoumena* in the 2nd century AD, "*The Arabs serve I know not whom, but I saw this statue which was a square stone.*"

The Suda Lexicon, which was compiled at the end of the tenth century, refers to older sources which have since been lost. It states: "*Theus Ares (Dushrara); this is the god Ares in Arabic Petra. They worship the god Ares and venerate him above all. His statue is an unworked square black stone. It is four foot high and two feet wide. It rests on a golden base. They make sacrifices to him and before him they anoint the blood of the sacrifice that is their anointment.*"

While the Nabataeans did not accord their gods with physical representations and include them in their art forms, they did enjoy art in a number of other forms: tomb facades, painted pottery, oil lamps, coins, and jewelry.

A block god with a face, found in Petra

In early Nabataean history, the Nabataeans had gods with Arabic names. Some of these were: (1) Al Qaum - the warrior god who guards the caravans, (2) Al Kutbay - the god of learning, commerce, writing, and divination (3) Allat - the goddess of spring and fertility (4) Al Uzza - the powerful and (5) Manawat - the god of destiny or fate.

Later in Edom, they also adopted the Edomite god Dushara (Dushares) - lord of the mountains.

The historian Strabo mentions that the Nabataeans worshiped the sun and set up altars to it in their homes. He added that they made daily libations on these altars and used incense. The archeologist, Philip Hammond, comments that: "*the god of the people was Dushares, 'Lord (dhu) of the Shara (Mountains)'. The exact nature of this deity, whether it was a mountain or a solar object like the sun, is still not entirely clear, in terms of the original concepts held about him*." As a contrast, the Sabeans of southern Arabia worshiped the sun cradled in the crescent of the moon.

As Hellenization began to take place around the Nabataean Empire, some archeologists feel that the Nabataeans began to identify their gods with Greek gods. Dushara was identified with Zeus, Al Kutbay with Hermes/Mercury. AlQaum with Ares/ Mars, Manawat with Nemesis, Allat was with Athena/Minerva, and Al Uzza with Aphrodite, Urania/Venus, and Caelestis.

Sometimes Allat was equated with Aphrodite, Urania/Venus and Caelestis as well. Al Uzza was also linked to the Egyptian goddess, Isis. Representations of Isis-Al Uzza are thought to be carved on the Treasury in Petra.

During this time of Hellenization, Nabataean deities were sometimes depicted in figurative form like those of the Romans. Traditionally, however, Nabataeans worshiped their own gods in symbolic form such as square block or triangular baetyls, sacred meteorites, or abstract stone blocks or pillars, sometimes enhanced with schematic eyes

and nose.

This practice of depicting divinity in abstract form reflects the traditions of the desert Arabs and such West Semitic peoples as the Phoenicians and Canaanites.

The Nabataean Pantheon

The god AlQaum

This god was known as the warrior god who guards the caravans. He was also known as the "*Protector of the Clan*." He is said to have drunk no wine, which was typical of the non-agricultural desert gods. In order to fit in with western civilization, AlQaum was later associated with the Greek/Roman god Ares or Mars. Large numbers of inscriptions bearing his name have been found, and some archeologists think he was a key god to the Nabataeans, protecting them at night. As a night god, he protected the souls of the sleepers in the form of stars, accompanying them on their nightly journey through the heavenly realms, as well as guiding caravans in the desert by means of the stars.

The god Al Kutbay

Al Kutbay was the god of learning, commerce, writing, and divination. The name Al Kutbay comes from the Arabic ktb which means '*to write*.' This god was revealed for the first time in 1959 by J. Strugnell when he discovered two carvings at the foot of Jebal Rumm. On the southwestern granite cliff, the two carvings are side by side and are dedicated to Al Uzza and Al Kutbay.

The inscription reads "*Al Kutbay, the one who is in Gaia*" (modern Wadi Mousa, at the eastern entrance to Petra.) Then later this same god was recognized in the Lihyanite graffiti of Dedan, a major caravan station between Mecca and Hegra.

Another inscription in Wadi Es Siyyagh, on the way to the main spring of Petra, mentions 'i*n front of Kutbay, this very god*.' The same name appears in a piece of Safaitic graffiti in Basta, situated on the caravan road from Petra near to the villages of Ayl and Sadaqa located between Petra and Ma'an. This caravan station is well known for its extensive ruins, and is located at the meeting of the Roman Via Nova Traiana road and the Suez-Ma'an caravan route.

It was probably the Nabataean caravan merchants who brought the worship of Al Kutbay to Egypt. At the Qasr Gheit site in Egypt, two Nabataean temples have been excavated. The western temple, dated to the 1st century BC, is described as "characteristically Egyptian both in ground plan and architectural elements." An altar-base, which was found in this temple, is inscribed with a Nabataean dedication which reads: '*from Hawyru son of Geram to Al Kutbay*.'

Plain baetyls were inserted into the niches of this temple. The central temple was a square cella (central chamber) enclosed by a wall, and was Nabataean in plan. It had good parallels to the temple of the Winged Lions of Petra, the temple in Wadi Rumm, and in the temple of Sahul, near Khirbet Ed-Dharih.

According to the *Annals of Sennacherib* (8 century BC), the god Ruldaiu (Ruda) was worshiped by the Arabs. He can be identified with Ortalt of Herodotus (5th century BC) and with Aktab-Kutbay of the Lihyanites and Nabataeans.

At the spring of 'Ain esh-Shallalet there is a baetyl of al-Kutbay. It is about 30 by 15

cm. in size and is lodged in an arched niche. This idol is plain, except for the molding at the top and bottom and for the slight traces of stellar eyes. The prominence of the eyes is a characteristic feature of the Arabian idols or funeral stelae. They are often symbolized in Petra by squares in relief and inlaid in some cases with a precious material.

As Hellenization swept through the Nabataean Empire, Al-Kutbay began to be associated with the Roman gods of Hermes/Mercury. At Petra and Khirbet et-Tannuer, several sculptures, attributed to Hermes-Mercury, were discovered, such as a double-faced pilaster panel, discovered south of the arched Gate of the Qasr el-Bint.

The goddess Al-'Uzza

Al-'Uzza was the goddess of power. The chief goddesses of the Nabataean pantheon were Al-'Uzza, Allat, and Manawat. Under Hellenization, Al-'Uzza was later identified with Aphrodite, Urania/Venus Caelestis, and also linked to the Egyptian goddess, Isis.

Representations of Al-'Uzza are carved on the Treasury at Petra. The baetyl of al-Uzza-Aphrodite is carved to the left of al-Kutbay. She is also mentioned in the Bosra inscription as a deity of the city, and her cult continued at Mecca until the coming of Islam.

Some archeologists feel that the female goddesses in Petra are all Al-Uzza, but others feel that they are Isis, the Egyptian supreme goddess. The problem with this is that Isis does not appear in any Nabataean god-lists, nor in any known theophoric names. Yet, her attributes and aspects appear to be present in Nabataean temples.

On the other hand an Osiris (Isis) fragment from the Temple of the Winged Lions in Petra has been found, and Nabataean inscriptions have been located in Egypt. These provide us with evidence of how far the Nabataeans traveled and traded, and give us clues of how the Nabataean sculptors could have borrowed traits from Osiris (Isis) in Egypt that they applied to their own goddess, Al 'Uzza.

At Et-Tannur (located in Wadi Hasa, on the northern border of the Inner Kingdom), archeologists found that the supreme female goddess was also associated with vegetation and grain. Her symbols also included: leaves, fruits, cornucopia, and the usual cereal grain stalks.

These aspects also indicate other connotations: fertility, and hence love; vegetation, and hence funerary relationships. The result of the accumulation of these attributes makes her appear to be a “supreme” goddess; Mistress of Earth and, for that matter, Mistress of the Underworld, as well. As she also appears on the Nabataean zodiac, she also becomes the Mistress of Heaven in many archeologists' writings.

When all of these factors were taken together, several archeologists concluded that a single goddess is involved and that she is, indeed, a “supreme“ goddess, under various aspects, and with a multitude of attributes and symbols, such as being portrayed in feline form.

At the Temple of the Winged Lions in Petra, a considerable number of cultic materials have been recovered which demonstrate the importance of Al 'Uzza. Some of the materials include: a ring-seal showing a nude goddess, a crowned female goddess riding a dolphin, dolphin frieze decorations, drilled cowry shells of a variety sacred to Venus, feline capital decorations and feline statuette fragment, a bronze feline head, and “Eye-Idol” blocks.

By the time of Greek contact with Egypt, it was convenient for the Egyptians to

accept cross identification of their gods with foreign deities in order to enhance their own stature. In this way, during the Graeco-Roman period, the cult of Isis had spread throughout the civilized world and she acquired distinct aspects, attributes, and symbols. The Egyptian goddess Isis possessed the powers of a water goddess, an earth goddess, a grain corn goddess, and a queen of the Underworld.

By absorbing the other local Egyptian deities, Isis achieved a position for which there could be no other competition. Greek, and then Hellenistic, and finally Roman contact opened even wider opportunities for her to be identified in other pantheons under different names. So it is that Isis, the Egyptian goddess, can be identified in some way with al-Uzza in Petra.

Isidorus, in the 1st century BC, declared that all foreign local names for any goddesses actually referred to Isis, (as does Apuleius later on).

As Isis became the supreme goddess of heaven, earth, the underworld, and the sea, her symbols became grain, poppies, the cornucopia, the zodiac, fish, the tyche, crown, lions, ships, pinecones, and even a distinctive knot on her garment.

Other bits of information regarding the Isis cult are found in ancient literature. Apuleius notes that, at the temple to Isis at Cenchreae, the image of the goddess was veiled by curtains. Solmsen cites a reference by Tibullus to "painted panels" in temples of the Isis cult in Rome, presumably like those in the House of Mysteries and elsewhere at Pompeii.

A nude goddess riding a dolphin on a ring seal found in Petra was identified as Atargatis, the goddess of the Winged Lions Temple. This is questionable because an inscription above the spring in Wadi Es Siyyagh reads: "*Atargatis of Manbig*." Manbig is Hierapolis, which is located in Northern Syria. Rather, the temple is probably that of Al-Uzza. The Nahl Hever Scrolls mention that al-Uzza had, in the 2nd century AD, a temple in the Petra.

Archeologists have found dolphins associated with this goddess at Et Tannur, Khirbet Brak, Abda, and Wadi Rumm. In Petra, they found a ring seal with the Mistress of the Sea wearing a crown and riding a dolphin.

The symbol of the dolphin was sometimes used by the ancients to portray the goddess who frolics around seafaring vessels, "*protecting*" and "*guarding*" them on their way. It is an apt symbol for she who rules the waves. This can be compared with the widespread use of the bull as a symbol for gods of power. The dolphin appeared as a symbol as early as the Sinope coin (6th century BC), and was later attested by Aristotle in 330 B.C. While some people have expressed their amazement that desert nomads would have a dolphin figure identified with their goddess, those familiar with the sea-going exploits of the Nabataeans realize how well this fits with their history.

The goddess Manawat

Manawat was considered to be the goddess of destiny or fate. Under Hellenization, Manawat was associated with the Greek/Roman goddess Nemesis/Fate.

As with Al Uzza, Manawat similarly does not emerge to any major role among the Nabataeans, judging from the relative infrequency with which she was invoked in ancient inscriptions. Her major domain would seem to have been around Hegra, although she, as Al-'Uzza, survived until the coming of Islam. Her image does not appear among the pre-Islamic "idols" at Mecca, however, and she may never have been represented there.

The goddess Allat

Allat was known as the goddess of spring and fertility. Under Hellenization Allat was later identified with the Greek/Roman goddess Athena/Minerva, and sometimes with Aphrodite or Urania/Venus Caelestis.Inscriptions mentioning Allat range from Hegra in Saudi Arabia to the Hauran in Syria. They include terms of reverence and adoration lasting until the Islamic period. Even at the founding of Islam, an image of Allat, along with one of Al-'Uzza, were to be found at Mecca. Some historians claim that respect, if not approval, of this ancient goddess was shown by Mohammed himself, and by other early followers of the Muslim prophet.

The god Dushares

Dushares was known as the lord of the Shara Mountains. These mountains surround Selah and Petra along the edge of Wadi Arabah.

Dushares was a principal god of the Nabataeans and seems to have been a god of the daytime. Shaj al-Qaum, on the other hand was the nighttime god, protecting the souls of sleepers and accompanying them on their nightly journey through the heavenly realms. Initially and traditionally, Dushares was represented in an aniconic form such as a square block, as is represented by the baetyls of Petra.

In 106 AD, after the reorganization of the Nabataean kingdom in conjunction with several adjacent cities of the Decapolis as the Roman province of Arabia, the cult of Dushares continued to prosper. The coins of the province's major cities in the imperial age bear eloquent witness to the strength of this great Nabataean deity. More than that, they reveal not only the prevalent aniconic representations of Dushares but a human face for him as well.

These coins are the only explicit and unambiguous guide archeologists have today. The earliest appearance of a figure of Dushares is on a coin from Bostra commemorating the future emperor Commodus as Caesar (AD 177). The figure on this coin does not replace the baetyls of Dushares either at Bostra or, as far as we know, anywhere else.

On the face of the coin is a young man with long flowing hair similar to the style that was popular among Nabataean kings. Under Roman rule, Nabataean kings ceased to exist, so this coin demonstrates an ingenious portrait of a cross between a Nabataean king and the god Dushares.

This coin must have passed Roman inspection because the next surviving image of Dushares as a young man occurs on a coin from Bostra of Caracalla as Caesar, in 209/210 AD. The features are again striking with an even greater profusion of flowing hair than before.

Another coin of the same year and struck on the same obverse die bears a reverse of Dushares as a baetyl in the middle between two smaller baetyls on a platform. This scene can be observed more clearly on Bostra bronzes of Elagabalus, depicting with greater detail the cult at Bostra. The central and larger baetyl is that of Dushares, whose name appears on the coin. The two smaller baetyls flank him on either side and probably represent attendant deities. Some archeologists have wondered if these three gods comprised an Arabian trinity.

The baetyls stand on a raised platform to which access is gained by a flight of steps. This presentation of the baetyl of Dushares at Bostra is not unlike those found in other cities, even where the shape of the baetyl itself is markedly different. At Adraa, for

example, the baetyl identified as that of Dushares is a large round dome, but the platform on which he sits is similar to the one at Bostra. One of these texts inscribed on the Qasr at-Turkman in Petra names "Dushara" as "*the god of our lord,*" and his representation sits on a platform, just as on the coins.

An inscription found in the Siq in Petra tells us of officials who were in charge of religious festivals that were associated with Dushares. Along with this, some Nabataean graffiti refers to people who were classified as priests.

Arab Trinity

Some scholars feel that the ancient Nabataean pantheon may have become: Al-Qaum, the male god of the night (moon), Dushara, the god of the day (sun) and the goddess Al-Uzza (stars). Al Uzza and Allat had very similar baetyls, and were probably two names for the same goddess. Inscriptions bearing their names are not found in the same area. In one area the goddess is known as Al Uzza and in other areas as Allat. Eventually Allat may have taken supremacy as the name of this goddess. In this case the trinity would have been expressed as: Al-Qaum, Dushara, and Allat.

On the other hand Wilhelm Froehner described the three Arab gods as Ares, Dushares, and Theandrios, as found on a gem in Nazareth. This representation of Dushares between the two gods Ares and Theandrios may give us the identification of the other two baetyls in the shrine of Dushares at Bostra.

As we mentioned, the Arabian Ares was a hellenized form of the god Al Qaum, and is already attested locally in an inscription from the area of Qanawat on the Jebal Druz. There are numerous instances of depictions of Ares on his camel, with a raised arm holding a spear, similar to that on the Bostra coin. He can be observed in greater detail, facing the opposite way on a well known relief at Palmyra in which he rides together with his companion Azizos who rides a horse. Stephen of Byzantium, who wrote Ethnica, reported that the Nabataean King Aretas IV once questioned the oracle. The oracle said he should look for a place called Auara, and when Aretas arrived and lay awake, he saw a sign, a figure dressed in white, riding on a white camel. This account may help us understand how Ares on his camel could be identified as Al Qaum and revered by the Nabataeans.

The third god on the Froehner gem, and possibly the third baetyl in the shrine of Dushares at Bostra, bears the striking name of Theandrios ("god-man"). So far no one has come up with a believable theory of how the female Allat was transformed into the male Theandrios. Some have suggested that the impact of Christianity may have had some influence on this remarkable change.

Another example of this trinity is found on the coinage of Characmoba (Kerak). Only four copies of a bronze of Elagabalus are known, but they are clear enough to provide us with an image depicting a shrine of Dushares with the three baetyls seated on their thrones, complete with a ladder as at Adraa and Bostra.

The seated pose of the god causes no difficulties and can be compared with the seated god in profile on the coins of Philippopolis (Shahba). This god has now been identified as Allat, similar to the statue of Allat at Palmyra and the Suweida image of the same goddess (now in the Damascus Museum).

And so it seems that there may be a case for claiming that in time the Nabataean trinity in the south of Arabia developed into Al Qaum, Dushara, and Allat while the same

trinity was represented in the north as Ares (Al Qaum), Dushares, and Theandrios (Allat).

Many bronzes of the god Dushares were issued under Elagabalus, the first native Arab to sit on the Roman throne. It seems to imply a resurgence of Arab pride over the accession of the first native Arab to the throne of the Roman Empire. In promulgating the religion of his homeland, this emperor actually took the baetyl of his god with him to Rome.

Deifying Leaders

During clearing work around the Petra Deir monument in 1990-91, an inscription was discovered nearby. It referred to "*the symposium of Obodas the God*." The Deir, which is dated to the latter part of the first century BC, contains a feasting hall. From this inscription, some archeologists believe that the Deir was created as a meeting place for members of the cult of Obodas. Others feel that the Deir may have been a tomb and monument, used by the family and descendants of Obodas.

Bowersock writes in 'Roman Arabia:' "*Aretas IV seems to have fostered a new respect for the Nabataean royal house and accordingly to have encouraged the memory of his predecessors. An inscription at Petra from the time of his rule reveals a cult of an Obodas, presumably the first of that name. The text proclaims a statue of "Obodas the God," a deity known also to the Greek world (as a passage in Stephanus of Byzantium makes plain) and worshipped in his eponymous city, Oboda, several centuries later under the name of Zeus Obodas.*"

In the next chapter on burial rites, we will examine the question of why the Nabataeans might consider a particular king worthy of elevation to divinity, and what was the nature of his cult.

Nabataean Zodiac

Artifacts found among the ruins of a Nabataean temple, known as Khirbet Tannur have contributed to our knowledge of the art and religion of the ancient Nabataeans. At the same time, they have posed questions.

One of the most intriguing finds at this site was a Nabataean zodiac, which has been dated to the first quarter of the second century AD. Zodiacs were familiar throughout the Roman Empire and adjacent kingdoms. Even as late as the sixth century AD, elaborate mosaic zodiacs were commonly seen in the floors of churches and synagogues. Zodiacs were like calendars, expressing the belief of a cyclical passage of time. In addition, most of the practitioners of polytheistic religion believed in the power of the stars and planets to affect earthly events. The Nabataeans were apparently among these.

The zodiacal circle in the Nabataean zodiac found at Khirbet Tannur is supported by a winged niké, and surrounded by a mural-crowned tyche. Though the Nabataean sculpture is damaged, it still communicates a great deal to us.

One of the symbols of the Nabataean zodiac portrays Allat, the female goddess of fertility. She is armed with a lance or sword which can been seen faintly above her left shoulder. She may also have worn a diadem. An ancient festival was celebrated by the Nabataeans and their nomadic neighbors when the birthing of lambs marked the spring season. It was a time when grazing was good and the earth was green from the spring rains.

The Nabataean Sagittarius is rendered as the bust of a jovial youth. This youth

probably bears a resemblance to Nabataean depictions of Al Kutbay, the god of learning and commerce. A spear or greatly enlarged arrow juts above the top of his left arm.

Capricorn is shown in the Nabataean panel as the damaged bust of a human figure, rather than the traditional Roman fish/goat that was common throughout the Roman Empire.

The remaining symbols of the Nabataean zodiac conform to their Roman counterparts but they are enlivened with original touches of artistic creativity. However, by far the most significant difference in the Nabataean zodiac is the arrangement of the order of the houses within the zodiacal circle.

The Roman version follows the traditional order known today. Beginning at the top and going counter-clockwise, the Roman zodiac runs as follows: (1) Aries, (2) Taurus, (3) Gemini, (4) Cancer, (5) Leo, and (6) Virgo. Then there is a break at the bottom after which the succession resumes with (7) Libra, (8) Scorpio, (9) Sagittarius, (10) Capricorn, (11) Aquarius, and finally (12) Pisces.

The Nabataean zodiac is different. The zodiac found at Khirbet Tannur begins counter-clockwise with (1) Aries, (2) Taurus, (3) Gemini, (4) Cancer, (5) Leo, and (6) Virgo. Then there is a break by the nikés head. So far, this is like the Roman version. Following the traditional order, one would expect (7) Libra to be next in the counter-clockwise progression. But this is not so! This space is occupied by (12) Pisces! Instead, the Nabataean Libra appears at the top, beside Aries. This begins a clockwise progression around the zodiacal circle's opposite (left) side; beginning clockwise from (7) Libra at the top, the progression follows in order from (7) to (12) to end at the left side of the niké caryatid's head.

Thus, the Nabataean zodiac found at Khirbet Tannur is extraordinary in its two opposite and completely separate halves. Some archeologists think that this denotes the existence of two New Year celebrations, one in the spring and the other in the fall, and this might help explain why there were two great festivals at Petra each year.

We will examine these festivals in the following chapter.

Chapter Fifteen

Nabataean Burial Customs

Every day hundreds of tourists stare in awe at the magnificent tombs in the ancient city of Petra. Indeed, they are among the most fantastic tomb facades in the world. But Petra is not the only Nabataean city with carved tomb facades. The cities of Egra in the Sinai and Meda'in Saleh in Saudi Arabia also have Nabataean tombs with facades.

For many tourists, the facades are everything and having gazed at their intricate designs and grandiose style and having photographed them, they move on to the next facade and the next. Some tourists, however, step inside some of the tombs to look around. Many are captivated by the rich colors in the sandstone walls. Others are amazed at the huge rooms that have been carved inside of some of the tombs. Few, however, look for places where the bodies were buried. And this is where the puzzle really begins. Some tombs have a few graves, some have very small graves, and some seem to have no graves at all.

In the chapter dealing with "The Price of Honor" (chapter nineteen), we will look at some of the reasons why the Nabataeans might have carved such rich and elaborate facades over their tombs. In this chapter, however, we want to examine the inside of the tombs, and the function of the five burial cities: Petra, Meda'in Saleh, Mampsis, Egra, and Elusa.

The Tombs

Many people, including myself have sometimes wondered if the monuments in Petra were really tombs or did they serve other purposes, like functioning as warehouses for storing incense, spices, and other trade goods. The answer is found in several inscriptions that have been discovered in Petra and Egra.

One inscription found at Egra on a tomb that is dated to about 27 AD states:

"*This is a tomb made by Arwas, son of Farwan, for himself and for Farwan, his father, hipparch, and for his wife Qainu and Hatibat and Hamilat, and for whom ever produces a signed writ by the hand of Arwas or by his sisters Hatibat and Hamilat, daughters of Farwan the hipparch, only he may be buried in this tomb who has such a writ, only he may be justified in burying in this tomb. In the month of Nisan in the year thirty six of Aretas, King of the Nabataeans, who loves his people. Made by Aftah son of Abdobodat and Huru son of Uhayyu, sculptors*."

Another tomb in Egra had this inscription:

"*This is the tomb made by Wshuh daughter of Bagrat, and by Qayamu and Mashkuya her daughters, of Teima, for each of them, and for Amirat and Usranat, and Elanat their sisters, daughters of Wshuh and for their clients*."

Note that Bagrat and Teima were located quite some distance from Egra. From this, it appears that the dead were transported to these central burial places and not buried in their home villages.

In Petra this inscription was found at the Turkamaniya Tomb: "*This tomb and the large and small chambers inside, and the grave chambers, and the courtyard in front of the tomb, and the porticos and dwelling places within it, and the gardens and the triclinium (dining hall), the water cisterns, the terrace and the walls, and the remainder*

of the whole property which is in these places, is the consecrated and inviolable property of Dushares, the God of our Lord, and his sacred throne, and all the Gods (as specified) in deeds relating to consecrated things according to their contents. It is also the order of Dushares and his throne and all the Gods that, according to what is in the said writings relating to consecrated things; it shall be done and not altered. Nor shall anything of all that is housed in them be withdrawn, nor shall any man be buried in this tomb except him who has in writing a contract to be buried according to the said writings relating to consecrated things, for ever."

These inscriptions leave us with little doubt as to the function of these monuments. They were built as tombs, but not for one person, but for extended families or for whoever received written permission to be buried there.

The Number of Tombs

There are over one thousand burial monuments in Petra and several hundred others in the other burial cities. If these were for family and tribal units, then the tombs in total could have contained tens of thousands of people. Added to this, there are extensive Nabataean graveyards located near Petra and the other cities where the more common people were buried. This adds up to a lot of graves.

As we mentioned above, it seems that the Nabataeans wealthy were mostly buried in these five Nabataean burial cities. There were three cities in the Sinai/Negev, one in the inner kingdom (Petra) and one in Saudi Arabia. These cities are also important cities, in that they were located at the junctions of major trade routes.

Therefore, it appears that the Nabataean dead were transported to these cities for proper burial. Most likely there was something in Nabataean culture or religion that encouraged people to think of them spending eternity along side of their family and relatives.

The Builders of the Tombs

From the inscriptions written above, we see that the tombs were made by Nabataean sculptors and not by imported slaves or laborers.

A City of Tombs

Today only a few archeologists believe that originally Petra was not a proper urban city, but that it was more like a religious city. They say that it functioned as the center for the twice-yearly festivals, and it functioned as a burial city. It was complete with several temples, a festival theater, a nymphaeum, a bathhouse, a sacred way, a monumental gate, many pools, and several other public buildings. The temples and other public buildings occupied the central valley, where the Royal Tombs were situated.

Along with this, the people who maintained Petra had to live there. This included priests, sculptors, grave diggers, temple attendants, administrative staff for the many public buildings, merchants who sold temple and burial paraphernalia, and other support people who ran services that provided things like food and water. If there was a royal court in Petra, then this would have entailed another whole group of people. These people alone may have numbered several thousand, along with their spouses and families.

Some writers have estimated that Petra might have had a population of 20,000 to 30,000 inhabitants. Interestingly enough, few academic sources substantiate these figures.

There was a limited amount of room within Petra's city walls. If we calculated, say, 10 people to a household, this would come to at least 2000 large houses. The problem with this is that there was very little room within the city proper for private housing. The great majority all of the buildings uncovered to date have been public buildings. As an example, consider the market places. For years, part of Petra was deemed as having upper, middle, and lower marketplaces. When archaeologists decided to excavate the lower market in 1998, they discovered a series of public pools, gardens, and waterworks.

Most archeologists, however, now believe that Petra was a large, urban center. The Petra Scrolls clearly tell us of the crowded living conditions within the city during the Byzantine era, but little is known of Petra during its purely Nabataean days from around 60 BC to 200 AD.

As the Nabataeans were nomadic people who traditionally lived in tents, it is assumed that for the first several hundred years of their occupation of the Inner Kingdom that they lived in tents, and did not erect stone houses. This is true in most of the Nabataean cities. It is only during the latter part of the Nabataean kingdom that suddenly the Nabataeans began constructing houses, and then they were often of incredible size, varying from 600 to 2000 square meters.

So, did people live in cities surrounded by the dead? The answer is not clear, but it may have been that most of the Nabataeans lived in tents scattered across the countryside, or in small centers such as Selah. Many also lived in smaller villages raising camels and horses. This would have required large tracts of grazing space. Others would be away with the caravans or trading ships.

So it only makes sense that they would cluster their public buildings around one spot, where the temples and Royal courts and tombs were located. As for housing, perhaps for many years, and particularly during public festivals, the majority of people lived in tents.

Burial Practices

If the Nabataeans traveled so widely, what would have happened to them if they had died while they were in a distant county or somewhere in the deserts of Arabia? This is a key question to understanding the Nabataean burial rites. A small group of archeologists feel that the Nabataeans practiced bone collection and buried the bones rather than complete bodies. This system of burial was used by the Persians and also by some Jewish groups during the Second Temple period.

In the Persian setting, the bodies of the dead were placed in a Tower of Silence. Such towers were about 8 meters (25 feet) high, built of brick or stone, and contain gratings on which the naked corpses were exposed to the elements. The vultures did not take long, an hour or two at the most, to strip the flesh off the bones. The bones were then left to dry in the sun, and were later buried or kept in an ossuary, or special storage place for the bones of the dead.

In the Jewish setting, the bodies were placed on a rack, so that once the flesh and organs had been stripped away by vultures, or decomposed, the bones would fall through the rack into the carved out space below. After the bones had dried, they would be collected and placed in a place of permanent abode. Some of the Jews of the Second Temple period practiced this type of burial. Thousands of small stone ossuaries have been found in and around Jerusalem where bones were kept. This allowed people who lived away from Jerusalem to still be buried in the Holy City.

Interestingly enough, around the city of Petra there are a number of high platforms that seem to be exposure platforms. If the Nabataeans really did practice this form of burial, then a Nabataean who died while on a caravan journey would have his body exposed to the elements, the bones dried, and then transported back to one of the sacred burial sites. Those who died near the burial cities would have been exposed to the elements on a high ledge in the city itself. There are a number of things that support this theory.

High Places

Scattered around the burial cities are hundreds of high places. Some of these are proper high places with evidence of altars, and other items. Others are different. In most of these cases steps lead up the side of mountains or rocks to a small flat ledge or surface area. On many of these ledges or hilltops, there is little room to stand. I suspect that these places were not actually high places in the religious sense, but that they were places where the dead were exposed to the elements. Visitors to Petra unknowingly pass many of these spots as they walk among the tombs.

Temples

Archeologists such as Glueck have noted the strong Iranian/Parthian elements that were mixed into the construction of Nabataean temples. If the Nabataeans adopted certain aspects of Iranian religion into their temple architecture, would it not also follow that they might readily adopt the Iranian/Persian practice of drying bones and then burying them?

Among the various forms of buildings and monuments in Petra, there are obelisks, or triangular shaped statues. These can be found on tombs, such as the Obelisk Tomb, or located individually, such as the two located near the high place. It is interesting to notice that freestanding obelisks from the same period have also been preserved in India and Egypt. The Indian ones were called '*stambha*' and were considered as an image for the supersensory presence of a deity. Similar rock tombs are also found in India, which were created as early as the lifetime of Buddha (sixth century BC).

Burial Sites

Most of the monuments in Petra have very few graves in them. Many have small storage places, which would have been sufficient for storing bones.

A tomb north of el-Habis, excavated by Horsfields had a rounded narrow grave with stone covers. The grave was so narrow that the corpse must either have been forced into it, or else, the bones were placed there later. In these graves, Horsfields found seven skulls and a mass of bones piled in confusion.

In Egra, there are some seventy tomb monuments. One monument, Tomb B11, is dated by an inscription to 50 BC. It has one large chamber excavated at ground level, apparently for the burial of two persons. In addition, six niches of different lengths were cut into the walls at different heights. None of these is deep enough to contain a whole corpse. This is typical of most of the tombs in the area, as well as at Petra. Tomb A6 has one large hall where three walls have troughs cut at their bottom. Each of these is subdivided by thin partition walls into twelve square compartments of 40 cm square. The archeologists thought that this might have been for the burial of children, but children

would never fit into a spot this small. But the bones of the dead certainly would.

Exposure Platforms

All around Petra are steps to the tops of hills, with little on top for markings except a rectangular cut hole. Some of these are 1.5 - 2 meters long and .5 meters wide. While some archeologists have taken these as water storage tanks, I do not understand how one could collect the water on the top of these rocks, nor is there any way to use the water afterwards.

A good example of one of these exposure platforms in on a rock beside the jinn rocks near the Obelisk Tomb on the way into Petra. Every person going into Petra walks past this rock. The rock in question is round and has steps cut into it on two sides leading to the top. On the top of the rock, a rectangular hole has been cut, and around the edges of the hole is a groove where the rack would have been placed. As the vultures stripped off the flesh, the bones would have fallen into the hole underneath, and would have been later retrieved for burial in one of the nearby tombs.

It is also important to notice how close the jinn rocks are located to this ossuary rock. It is as if the jinn rocks were there to protect the dead bodies from evil spirits until the bones were clean and ready for proper burial. Another jinn rock located beside the stairs that lead to the high place in Petra is also located very close to several exposure platforms.

Exposure platform near Petra

Why did the Nabataeans use this form of burial?

First, the use of communal graves for families and tribes makes sociological sense, as the Nabataean culture was structured on a tribal basis. As the larger family would have established its own particular tomb, members of that family would want their bodies buried in this tomb, even if they died many miles away. The practice of drying and transporting bones would have been a practical way to deal with people who died while on journeys to distant places.

This would explain the tombs that are present at Egra, Petra, and Meda'in Saleh in Saudi Arabia. Each of these centers was a stopping place along the caravan routes, and the bones of the dead could be buried there in style. This also explains why inscriptions in Egra indicate that people living in Teima were buried in Egra. It also explains why there are so many tombs at Petra and so little space for the living.

Ancient Evidence

Archeologists and historians have long puzzled over a statement made by Strabo. He tells us “They have the same regard for the dead as for dung, and therefore they bury even their kings beside dung heaps.” (Geography XVI.2.26)

This statement seems to make no sense, as the Nabataeans had great regard for their dead, as is evidenced by the magnificent tombs. For years, historians have wondered if Strabo was mistaken. But how can we, thousands of years later, question the account of someone who was actually present at the time?

To understand Strabo's statement, we must try to think as Strabo thought. He was a Roman who had spent much time in Rome and Egypt, where burial customs were very different. He must have been very puzzled by the method with which the Nabataeans treated their dead. They put the bodies outside where they would stink, and be covered with vultures, insects, and other carrion. To Strabo this must have seemed very disrespectful. The Romans would have used massive amounts of incense to mask the smell of burning flesh, as they cremated the bodies and interred the ashes.

However, if we think in terms of bone collection, then Strabo's account makes sense. The Nabataeans would have put the bodies out, near the dung heaps. Then, once the bones were collected they would have had a ceremony to inter the bones in the family burial place.

Along with this, we must consider that the garbage dump in most ancient cities was just over the city wall. Most people simply threw their garbage off the wall where it rotted. Outside of Petra's city walls are mounds of broken pottery, evidence that the Nabataeans also practiced this. Excavations at Petra now support the presence of large cemeteries just beyond the city walls. These cemeteries were probably for common people, but it demonstrates how the dead were buried near the garbage dumps. All of these things may help explain Strabo's statement.

The Broken Pottery

Most of the tombs in Petra and other locations seem to have areas in or near them for serving meals. Many had decorated dining halls built right into the tombs. Strabo also tells us that the Nabataeans prepared meals to be eaten in groups of thirteen persons. (XVI.4.26)

The Turkamaniya Tomb inscription mentioned graves, chambers, a courtyard, porticos, dwelling places, gardens, dining hall, water cisterns, terraces, and walls.

Tourists today can still see that large hall from which a narrow passageway leads to an equally large burial hall. The first hall was probably used as a dining room. This kind of arrangement can be seen in other tombs easily accessible to tourists, such as the Obelisk tomb, the Treasury, and the Urn Tomb.

Remains of memorial meals have been found in Mampsis and Elusa. An area outside of the tombs had places for fires, washing, and hundreds of broken clay pots, as if they were used for cooking. In this case there were more than 100 dishes, small jugs and cups and one or two lamps scattered around, and parts of large water jars. In some tombs there are clear cup-marks and grave runnels indicating that the Nabataeans either had commemorative services, offerings, or meals.

Some archeologists have deduced that commemorative meals were held during the day, and that at the end of the meal, the dishes were all broken. In one place a stone was found that was used to break a large stack of dishes, still lying among the broken pottery. It is interesting to note that in Jewish law, dishes used in a cemetery were always considered unclean and not usable afterwards.

From examining the pottery, it seems that the Nabataeans produced pottery of inferior quality for the use in cemeteries. From the areas around the tombs, archeologists have determined that funerary meals included olives, dates, fowl, and sheep.

Recently, archeologists digging in the catacombs under Rome have come to the conclusion that in some instances people would gather in the Roman pagan catacombs to hold commemorative meals before the graves of the dead that they were remembering. If this was practiced in Rome, would it not be reasonable to assume that it was also practiced in Petra?

One would also assume that in a burial city there would be shops selling dishes, food items, incense, etc. There is evidence that shops were located along the Colonnade Street in the center of Petra. While some feel that these shops are proof of a large urban center, they could equally support the theory of a large religious center.

It is also interesting to notice the huge amounts of broken pottery that are lying around Petra and other religious sites of the Nabataeans. This pottery was produced in three qualities. First and foremost was the finely painted, eggshell thin, high quality pottery found around dwelling places. Second, a good quality pottery, but smaller in size was used in temple worship. Third, lower quality pottery with poorer quality artwork was found around the tombs.

Strabo tells us that, at the turn of the millennium, "*The king holds many drinking-bouts, in magnificent style, but no one drinks more than eleven cupfuls, each time using a different golden cup*" (XVI.4.26) demonstrating the Nabataean's flagrant use of many dishes.

Pilgrimages

The practice of bone collection would explain why the Nabataeans made trips to Petra and the other burial cities. These trips would appear as pilgrimages to us today. People would gather at the burial site to worship in the temples, participate in burial ceremonies, and partake of the memorial meals for the dead. From inscriptions found in and around Petra, it seems that they had two festivals each year to do this.

On these occasions, they would have paid tribute to their own family dead and perhaps to their dead leaders, such as Obodas II. It is unclear if a memorial meal was

eaten once, or if people would return each season on pilgrimages to eat or drink at the tombs of their dead relatives. If this is the case, then it is easier to understand how a cult could develop and how eventually a Nabataean leader could be deified.

It is also interesting to note that as far as we know the dead were never buried with their riches or any offerings of any kind, although sometimes women had some jewelry with them.

With the coming of Christianity in the fourth century, the custom of bone collection and meals celebrating the dead was discontinued.

Chapter Sixteen

Nabataean Culture

When one uses the word 'culture,' it can encompass many different subjects. In the following four chapters we will explore several facets of Nabataean life. In this chapter, we want to look at a number of topics, such as Nabataean houses, ceramics, and water collection systems. In the next chapter (seventeen), we will examine the Nabataean language, and in the following chapter (eighteen), we will examine the basis of the old Nabataean culture as derived from their desert and Bedouin background. Then in chapter nineteen we will look at the dramatic shift that took place in Nabataean culture as they moved from a desert and Bedouin world view to that of Hellenized urban dwellers.

Down through history, cultures have changed and adapted as outside pressure has been placed upon them. When there is little pressure, the change is usually slow and gradual. However, when extreme pressure is applied, such as in the case of domination by a foreign power, change can be quite rapid. When the Nabataeans lived in the desert, their culture changed gradually. However, when it was required of them to change and adapt, the Nabataeans demonstrated an amazing ability to adapt and adopt from those around them.

Some archeologists have noted that Nabataean architecture, art, and religion all had a certain affinity to other civilizations, but at the same time, they always displayed their own particular Nabataean style. Added to this, elements of very distant civilizations are also found in Nabataean culture whose existence cannot be satisfactorily explained, except by accepting the far flung reaches of Nabataean trade, both on land and on sea.

Originally, the Nabataeans were tent dwellers who combined trade with their pastoral lifestyle. In order to understand their culture, we will need to study what some of the early historians said about them. Diodorus, who wrote in 312 BC of the Nabataeans, provides us with a key description: *"... some of them raise camels, others sheep, pasturing them in the desert. While there are many other tribes who use the desert as pasture, the Nabataeans far surpass the others in wealth although they are not much more than ten thousand in number; for many of them are accustomed to bringing from the sea frankincense and myrrh and the most valuable kinds of spices, which they procure from those who convey them from what is called Arabia Eudaemon. They are conspicuously lovers of freedom, and flee into the desert, using this as a stronghold. They fill cisterns and caves with rain-water, making them flush with the rest of the land, they leave signals there which are known to themselves, but not understood by anyone else. They water their herds every third day so that they do not constantly need water in waterless regions if they have to flee.*"

These cisterns are still being discovered in the deserts around Nabataea. They are usually bell-shaped caverns with small openings on the surface, with the large cistern hidden under the ground. Small water channels directed water from nearby hills and mountains into these cisterns. Sometimes the openings on the surface were covered with a large rock to hide them completely.

This passage seems to make it clear that the Nabataeans were pastoralists who grazed sheep and camels for a living. But even as early as 312 BC, this passage tells us that the Nabataeans had also established themselves as caravan traders, and that they brought

spices and incense from southern Arabia to harbors on the Mediterranean. Since Diodorus describes them as being wealthy, they obviously had engaged in this trade for some time.

The Nabataeans had a dislike for houses and ownership of land, not wanting to be enslaved by anyone. So, when we later find them erecting huge cities and monuments, it seems as if a complete change had taken place in their culture. They seem to move directly from tents in the desert to massive and impressive palaces in the cities.

Archeologists to date have not been much help in solving this riddle, as most of the archeological studies that have been done on Nabataeans have been concentrated on the later years when they were building cities and erecting monuments. This is understandable, for desert nomads leave very little behind them when they move camp, and so there is little trace of Nabataean civilization prior to the time when they started erecting monuments.

Therefore, we will begin with the records that we have, starting with the various Nabataean rulers.

Rulers

History gives us the names of roughly a dozen kings who ruled the Nabataeans until 106 AD. They did so without apparent conflicts, problems of succession or even rivals for the position. The only major problem that historians face is discerning the accession date for the first ruler, and the name of his immediate successor.

The first certain reference we have to Nabataean kingship comes from Jewish history. At the time of the Egyptian campaign of Antiochus IV in 169 BC, conflict arose among the Jews concerning the high priesthood. A Jew named Jason, who had availed himself of the internal problems afflicting the Seleucids at that point, secured the high priestly office through expressed pro-Syrian (Seleucid) sentiments and by a present made to Antiochus IV who had only recently assumed power. This maneuver, although not acceptable to the orthodox Jews, at least settled the matter in Jerusalem for three years. Antiochus was quite content for Jason to assume the role of what he regarded as a civil office, for he did not consider matters of religion as important.

However, for the Jews the matter was very important, for Jason was not even from the priestly family, and thus was not qualified to be the high priest. Then Menalaus, a Benjamite, who was affiliated with the powerful Tobiad family, but also not from the priestly line, simply bought the office out from under Jason and Jason was forced to flee. He ended up in the tent of Aretas, leader of the Arabians and Nabataeans. In the end, Jason was sent on to Egypt, and Menalaus's position was also attested.

Aretas is mentioned in II Maccabees 5:7-9 and this gives us a solid connecting date between the Nabataean leaders and the records of western civilization.

Over the centuries, as the Nabataeans moved from nomadic values to urban values, the role and function of their rulers changed. When the historian, Strabo, tells us that their leader was a democratic chief citizen among citizens, he in effect describes to us the role of a desert sheik, who rules by consensus rather than authority.

According to western historians, kingship soon evolved from tribal sheikdom and with it, the urge and opportunity to emulate neighboring, more sophisticated, cultures. As much of our knowledge of the Nabataeans comes to us through Roman historians, we must accept that the Roman historians interpreted the facts as they saw them through their

Romanized worldview. Thus, they would speak of kings, rulers, and tyrants when referring to those who led the Nabataean people. The Nabataean rulers, on the other hand, used terms about themselves, such as "*friend of the people*" and "*one who has given life and deliverance to his people*." Nowhere in Nabataean historical records do we get the feeling that the Nabataean rulers were tyrants or all powerful kings, as we have known them in the west.

Royal Marriages

Along with this, the Nabataeans accorded a high position to their women. Women could inherit property and dispose of it. Women were often honored, such as the queens whose pictures appeared on coins, sometimes alone and sometimes with their husbands. In addition, many of the Nabataean gods were depicted as females.

During the time of Aretas IV, the queens of his reign were his sister Huldu and his sister Shuqailat. Historians have argued whether the term 'sister' meant that these two were his actual sisters, or whether the term 'sister,' simply referred to them as female. Some have also wondered if they were married. Brother-sister marriages were not unknown at that time. They began when Ptolemy II Philadelphus married his sister Arsinoe in 277 BC and afterwards this became the standard practice in the Royal House in Alexandria. This custom was an old tradition in Pharaonic Egypt and existed even later among the Seleucid dynasties of Syria.

There is no record, however, that tells us if these women were indeed the sisters or wives of the king, or, if they were his sisters, whether they were married. Some have even speculated that perhaps they appeared on the coins simply because of a wish of someone in the royal house.

Offices

From the thousands of Nabataean graffiti, we can discover the names of many different offices held by Nabataeans in the middle and late kingdom, after they had left their nomadic lifestyle and had settled. Some of these offices were: eparch, chiliarch (military rank, commander of 1000), hipparch (military rank, perhaps cavalry general), strategos (military rank, infantry general of 3000 plus), epitropos (First Minister), and ethnarch (deputy of the ruler.) When Paul was in Damascus he noted that there was a Nabataean ethnarch of Aretas in control there. Others offices found in graffiti are: mas'r (administrators), qara (readers), priests, scribes, and sculptors.

From the inscriptions on tombs, reference is made to inheritance, property, etc., implying there was a legal profession. This is further augmented by the fact that Nabataean merchants were continually creating, fulfilling, and disputing contracts for their merchant business.

Along with this, Nabataeans guided, guarded, and supplied the caravans as they moved through the desert. This meant that there were caravan drivers, caravan masters, navigators, guards, station attendants, etc.

The Nabataeans also handled the bitumen trade, raised horses, and cultivated palm groves for date production, as well as tending balsam groves (as indicated in Antony's attempt at taxation.)

As their civilization developed, other professions were added. From Nabataean graffiti we can discover trades such as: copper-smith, blacksmith, carpenter, surveyor,

mason, warrior, hunter, laborer, and others along with the government and religious designations, as well as those of artists and sculptors, musicians and singers. Along with this, there are some references to 'slave,' and one reference to a 'freeman.'

Classes may have developed as well, as can be implied in the layout of the Graeco-Roman amphitheater in Petra with its various sections of seats.

Role of the family

Family relationships remained strong throughout the culture. This can be seen in the graffiti, in the words of parental relationships, and their habit of rehearsing lineage as part of naming. There are also numerous instances of Nabataeans marrying non-Nabataean wives, and of Nabataean women marrying non-Nabataean men.

Slaves

Strabo tells us that they had few slaves or servants. This was true in Petra, where very few of the names that have come down to us are servant-hood type names. In Egra, however, there are many different kinds of slave names: 'Amat, 'Aphityu, Hana, and Zabin. On the other hand, around sixty percent of tombs in Egra belonged to the upper class.

If the Nabataeans did not generally have slaves, one would imagine that the Nabataean Kingdom would become a haven for escaped slaves. From history we know that several rulers who were in trouble escaped to the Nabataean court, so it would seem in keeping that slaves running from their Roman masters might also try and make for the Nabataean Kingdom.

Houses

Archeologists can tell a great deal about a civilization by examining their houses. The problem with the Nabataeans, however, is that archeologists have not been able to find a single Nabataean house from the earlier Nabataean period. For example, there was a dig at Moyet Awad (Moa in the Arabah), on the Petra- Gaza road, that found coins, pottery, and a caravan station, but no houses.

Even to this date, archeologists have not dug up a single house from before 100 BC in the great city of Petra. This should not seem strange to us, as the historian Diodorus made it plain when he recorded: *"They have a law neither to sow corn nor to plant any fruit-bearing plant, nor to use wine, nor to build a house. This law they hold because they judge that those who possess these things will be easily compelled by powerful men to do what is ordered them because of their enjoyment of these things. Some of them keep camels, others sheep, pasturing them over the desert.*" (XIX.94.3-4)

In the Early and Middle Nabataean period, the Nabataean people must have lived exclusively in tents, and only very occasionally are their camping spots found. Usually these are identified by a little broken pottery and blackened stones used for cooking and upturned stones, possibly used for worship.

During the time that the Nabataeans were nomads, they had little use for pottery and used water skins and wooden bowls instead. Hence, little or no Nabataean pottery can be found before 100 BC. When the Nabataeans suddenly started using pottery, however, it was the best pottery of its time in the whole region of Palestine and Syria.

The same is true of their architecture. Their earlier buildings are excellently

constructed, with well made foundations and walls of finished stone.

Why is this? I suspect that this is because the Nabataeans copied what they saw and could pay to get it done right. On their visits to eastern Asia, and especially China, they saw beautiful pottery and copied it. Thus, they were copying the masters, not the common pottery of the Middle Eastern world. The same is true of their architecture. When they wanted to build buildings, they started with public buildings for administration and worship, and memorials for their dead. As they had the money, they copied the masters, and built phenomenal structures. This is quite incredible, when you consider that most of the people still lived in tents.

And why shouldn't they live in tents? In ancient cities, streets were narrow, houses were crowded, and sanitary conditions were far from satisfactory. On the other hand, when a Nabataean camping spot got too dirty or soiled, the Nabataeans could simply move a short distance away and set up again in a clean spot. Nature, in its own way, would clean up the mess and several years later the original camping spot would have reverted back to its natural state.

In a camping spot, animals could be kept far enough away to keep odors down, and when the weather changed, tents could be located on the lee side of a hill in winter, to keep away from the wind, and on the other side of the hill in the summer, to catch the breeze.

In the cities, the situation was different. As I mentioned, in Mampsis, the main 'road' was simply a gully that drained through the center of the very crowded town. On the other hand, the public buildings, caravan center, reservoir, bathhouses, and temples were completely separated from the squalor of the city.

Rather than a slow gradual change from rural to urban housing, when the Nabataeans did build houses, their houses were large and spacious, while the paths outside were narrow and dirty. Can you imagine the social dynamics that happened, as the Nabataeans quickly grew wealthy and moved from their simple tents into these huge houses? In some ways a parallel can be seen in the culture of the oil-rich Arabs of modern Arabia who went from tent dwellers to being wealthy businessmen.

Like the houses of the oil-rich Arabs today, Nabataean houses were not plain, but were stuccoed and painted with reds, blues, and gleaming whites. Even Strabo comments: "*Their homes through the use of stone, are costly, but on account of peace, their cities are not walled*." (XVI.4.26)

Ceramics

Nabataean common-ware pottery was simple and similar to the pottery used by the civilizations around them. Its distinctive characteristic was the use of red clay that gave it a bright red color. Most Nabataean common-ware pottery was well made but plain, with little decoration. This, however, was not true of their fine, thin-wares. Nabataean fine thin-ware pottery was all made locally, and some was plain, but the majority was painted. It was vaguely similar to Edomite painted pottery, but of a much higher quality. In fact, Nabataean fine thin-ware was perhaps the finest ceramics produced in the Middle East up to that time. It has been suggested by some that their taste in fine pottery came from pieces they might have imported from China.

Design on Nabataean dish found in the Petra Museum

As stated earlier, while the Nabataeans were nomads, they had little use for pottery and used water skins and wooden bowls. Consequently, Nabataean pottery does not generally exist from before 100 BC. Then, suddenly they began to produce their own pottery, both common-ware pottery for every day use and very fine thin pottery for the wealthy and for religious usage. This pottery, especially the later kind, was produced in huge quantities, and large mounds of broken Nabataean pottery lie in Petra and Oboda today.

Their painted pottery was unique, with figures of ancient mythology, flowering vines, flowers, and even birds with bright plumage. Some of the finest and thinnest of Nabataean painted pottery was found underneath the paved floor of the central altar-shrine of Khirbet Tannur, and is dated no later than the end of the first century BC. Recently archeologists have discovered near complete pottery trays, bowls, and other objects in an unrobed tomb in Jordan.

In 1980 a series of Nabataean pottery kilns was discovered near the government rest house in Petra, when a new road to Um As Sahun was being constructed. The kilns were of a late date, probably first century AD, and were abandoned before the Byzantine

period.

Water Catchment Systems

The Nabataeans greatest accomplishment was probably their system of water management. They developed a system to collect rainwater using water channels, pipes, and underground cisterns. Added to this, they developed very strong, waterproof cement, some of which is still in existence to this day.

They also developed sophisticated ceramic pipelines and reservoirs using gravity feeds (siphons or inverted siphons), that served the developing urban centers. Outside of the cities, dams closed off wadis to collect water during the rainy season, while stone circles or terraces retarded runoff from slopes and trapped valuable topsoil so that their irrigation lines could feed crops.

The Nabataeans seem to have had a knack for developing water systems from their earliest days. The historian Diodorus tells us: "*For in the waterless region, as it is called, they have dug wells at convenient intervals and have kept the knowledge of them from people of all other nations, and so they retreat in a body into this region out of danger. For since they themselves know about the places of hidden water and open them up, they have for their use drinking water in abundance."* (II.48.2)

Diodorus goes on to say: "*They take refuge in the desert using this as a fortress; for it lacks water and cannot be crossed by others, but to them alone, since they have prepared subterranean reservoirs lined with stucco, it furnishes safety. As the earth in some places is clayey and in others is of soft stone, they make great excavations in it, the mouths of which they make very small, but by constantly increasing the width as they dig deeper, they finally make them of such size that each side has a length of about 100 feet. After filling these reservoirs with rainwater, they close the openings, making them even with the rest of the ground, and they leave signs that are known to themselves but are unrecognizable to others. They water their flocks every other day, so that, if they flee, or wander through waterless places, they may not need a continuous supply of water*." (XIX.94.6-9)

Numerous Nabataean cisterns can be seen throughout the Nabataean Empire, and far out into the desert. Early Iron Age cisterns were simple and plastered. The Nabataeans perfected the Iron Age system by creating a perfect cube, with corners that formed perfect right angles. They sometimes added perfectly made stone support pillars with accurately spaced, combed, oblique stone dressing. Onto this prepared surface, they plastered cement composed of water-resistant plaster of unmatched quality. Archeologists feel that this must have taken them hundreds of years to develop and perfect.

The well made reservoirs that Diodorus says were common in his day, point to the fact that the Nabataeans must have been developing this skill during earlier years, perhaps back to the time of the Babylonians, or even the Assyrians. Perhaps they learned some of their skill from the people of southern Arabia, who were creating waterworks during the Iron Age.

Herodotus, when writing about the Nabataeans tells us, that he believed they could find water anywhere in the desert. He mentions that Cambyses used an Arab to bring him water in the desert as he moved his army against Egypt. The Nabataeans refused to tell the army where water came from, but they showed up at regular intervals in the desert, with their camels loaded with water skins, enabling the army to pass across the desert into

Egypt. The Nabataeans made up a story by explaining that there was a wonderful river in the desert and that they used a water duct made of sewn ox-hides to transport the water over many miles. Herodotus thought that the story was not very credible. (History III.5, 7-9) What probably happened was that the Nabataeans, in exchange for financial return, simply supplied the army with water from their secret cisterns that were scattered along the caravan route; which would most likely be the route that the army took. By telling stories, however, they could keep their water sources secret and at the same time, profit handsomely, a typical Nabataean trait.

From the descriptions of Herodotus and Diodorus-Hieronymus, it seems that the Nabataeans had a well-developed water collection system in place as early as 600 BC. If this is true, then why did they develop such a complex system, and where did they learn it? Most puzzling of all, why did they develop these early systems along caravan routes that had been used for many centuries, and already had established watering holes? We will look at some possible answers to these puzzling problems a bit later.

Conclusion

Nabataean traders traveled widely. They had contact with the civilizations of Europe, Egypt, Africa, Mesopotamia, Southern Yemen, Persia, India, and even places such as China. These connections opened doors to the greater world around them, fostering an impressive borrowing of advantageous lifestyle elements. Such extensive borrowing clouds the issue of which Nabataean cultural attributes are really "Nabataean" in origin. Certainly features were adopted, adapted, and innovated from things they saw in other locations. Regardless of the confusion, it is clear that the native abilities of the Nabataeans resulted in the creation of a unique mosaic of art, architecture, religion, and technology. In the face of Hellenistic and Roman influences, the Nabataeans maintained a high level of political independence and were freer than many neighboring societies to interpret outside elements in a distinctly Nabataean manner.

An appreciation of technological sophistication is evident in many aspects of Nabataean life such as architecture, ceramics, metallurgy, chemistry, mathematics, construction, water collection and distribution, shipbuilding, navigation and even toxicology. As they borrowed, adapted, and interpreted, they mastered many different skills and arts and thus created a unique Nabataean worldview and culture.

Chapter Seventeen

Nabataean Language

As far as we know, the Nabataeans were not great writers of books. Very little literature has passed down to us. We have no literature from the early years, and the famous Petra Scrolls date from the Byzantine Era. While they contain only legal documents, these scrolls give us a glimpse into the life and times of Petra during the Byzantine era, and give us an excellent database of Nabataean words.

The main source of Nabataean writing comes from inscriptions made on tombs, and from graffiti written on rocks and boulders throughout the Middle East. It seems that Nabataeans and other tribes would scratch their names and sometimes a message, such as a lament for a loved one, on the rocks. These inscriptions are now being cataloged and much is being learned from examining them.

It is interesting to notice, however, that the Nabataeans must have had a high degree of literacy, for many of the inscriptions were written by shepherds. Historians tell us that literacy was not as widespread among other peoples at the same time.

It seems that the Nabataeans created a new writing form to add to those in use in the Middle East of their day. They developed a running “cursive” or semi-ligatured script, which was used for both lapidary inscriptions and the more common graffiti. This writing form would later evolve into the “Arabic“ writing still in use by Arabs today.

The Nabataean language seems to have been a variant of Aramaic with a strong Arab influence in it. However, archeologists have not come to any solid conclusions concerning the Nabataean language. Other Arabian languages include Lihynaite, Safaitic, Thamudic, Himyarite, Minaean, Qatabanian, Sabaean, and Palmyrene. The problem is that many of these languages are very similar to Nabataean in a number of ways. Safaitic and Thamudic have a different script to Nabataean, but they seem to be very similar languages. What is confusing is that the people who wrote in these other scripts had the same gods as the Nabataeans and often had the same names as Nabataeans. The people who wrote these languages were so similar that some archeologists have wondered if some of these languages were used by the same people. Was there one language for common people, one for religious leaders, and one for merchants? Were there three different groups of Nabataeans each with their own dialect? Or, do the three dialects tell us that there were three distinct tribes, who were closely related in many other ways, such as culture and religion?

When the Nabataeans sent their famous diplomatic letter written to Antigonus, Diodorus the historian notes that it was written in 'Syrian letters' (XIX.96.1). Syrian in this context is no doubt, Aramaic, the trade language used at that time by the Seleucids. This is important to note, because it demonstrates that the Nabataeans were capable of producing a letter in another language.

However, when one considers that the Nabataeans were merchants, importing, exporting, and marketing such important commodities as bitumen and frankincense, we must realize that they would have been able to write contracts, receipts, and letters of agreements. In order for them to buy in distant lands and sell in distant lands, members of their community must have mastered many different languages.

The Treasury monument in Petra.

Years ago, while working in the Arab Gulf, I met a young man from Baluchistan who had mastered seven languages. He could easily translate back and forth between these languages, and most amazingly of all, he did not consider his skill particularly unique. Members of his community had always learned to deal with multiple languages. Likewise, one would assume that many of the Nabataeans learned a variety of languages, and that these languages would have had an impact on their own native tongue, just as their culture had been impacted by the customs of other civilizations.

Graffiti

There are many things that archeologists have learned from Nabataean graffiti. They have developed a database of as much graffiti as possible and now they are beginning to compare the various messages that have been scratched in stone.

From this database, they have been able to compare the various Nabataean names. Since they are working with over 20,000 pieces of graffiti, popular names can be discovered, as well as patterns of names dealing with gods, events, and locations.

For example, a name like Paran was given to people born around Paran, the most important oasis in southern Sinai (biblical Paran). *'Adnun*, a personal name, is based on

the name of the first ancestor of the southern Arabian tribes. Names such as '*Amat, 'Aphityu, Han*a, and *Zabin* might be slave names.

In Southern Sinai there are a number of names derived from Cain, such as *Ibn al Cain*, etc. The name Cain means smith or artisan, and can be compared with Genesis 4:22, where a man named *Tubal-Cain* was the master of all coppersmiths and blacksmiths.

Numerous Nabataean inscriptions have been found in the vicinity of the copper smelting site at Wadi Nasb. There the name *Waqilu* is quite common, meaning steward, manager, or deputy. Many names seem to denote the skill or class that the person held. For instance, *Nashgu* is a common name, meaning weaver, and *Shumrahu* means branch of a palm tree laden with dates.

In the Sinai there are names including some element of the god Ba'al, such as *Ushba'al* (gift of Ba'al), *Garm'alba'ali* (Ba'al has decided), *Thaim'-alba'ali* (servant of Ba'al), and so on. None of these composite names occurs in any other Arabian language. There are also a couple of Ba'al names from Petra. Ba'al names are not found in the other Nabataean regions. Thus Ba'al was worshiped in the Sinai, (and from the Biblical records of history, in Palestine.)

Another god was 'Allah. This was sometimes written as *'Illah*. Some of the Nabataean names were: *'Aush'allah* (Allah's faith), '*Amat-'allahi* (she is a servant of Allah), *Hab-allahi* (beloved of Allah), *Han-allahi* (Allah is gracious), *Abd'allah* (slave of God), and *Shalm-lahi* (Allah is peace). The name *Wahab-allah* is found throughout the entire Nabataean region and means *gift of Allah*. These names were used many centuries before the coming of Islam.

The name *Kalbu* is related to the word for 'dog.' Historians believe that perhaps this name was related to the ancient name for the star Sirius, which was used for navigation in the desert. It's hard to believe that someone would name his child after a dog, especially since dogs were generally considered very dirty.

Another ancient god, *'El,* was once a chief god of the Semites. Such names were *Wadal-l'el* (friend or lover of 'El), *Dani'el* (judged of 'El), *Waqi'ha'el* ('El protects), and so on. This is found hundreds of times in Nabataean and Safaitic graffiti, but is only found once in graffiti from neighboring countries such as Moab or Edom.

One Nabataean name, *Rav'el* ('El is Great), is the name of two Nabataean kings, but it was never used by ordinary men. Yet, in other Arabian scripts such as Safaitic, Thamudic, Himyarite, Qatabanian, Sabaean, and Palmyrene it is found quite often. In the Greek form it became the name *Rabbelos*.

Strangely, Dushara, the Nabataean supreme god, is represented only a few times by two personal names - *Abd Dushara* (Slave of Dushara), and *Tym-Dushara* (servant of Dushara).

People born during religious festivals were often given one of several names relating to the festivals, such as *Bahaga* (born during the pilgrimage).

Counting the names

It is possible to tell something of the way people interacted with each other by examining where the names are found. For example, in the Sinai, Nabataean script graffiti included 439 personal names, which seem to be unique to the Nabataeans. Seventy of these are very frequently found in the Nabataean Sinai graffiti but unknown in

most of the other language groups around.

'Ausos is found 241 times in the Sinai, and only 16 times elsewhere. *Walu* occurs 409 times in Sinai but only 24 times elsewhere as was *'Ammayu,* used 300 times in the Sinai.

As time progressed, the Nabataeans began using Greek names, and slowly Nabataean names disappear from the graffiti. This is an important fact, as it clearly demonstrates how the Nabataeans moved away from Nabataean culture, to adopting Greek classical culture.

Two Families of Alphabets

Throughout the Middle East, graffiti is found in a number of different forms, but they seem to fall into two distinct families of alphabets. These are important, for Nabataean inscriptions are often found in the same location as inscriptions from other languages. This intermingling of alphabets creates a problem. Was the area overrun at a later period by people with a different alphabet, who decided to inscribe their names and activities on the same rock locations as the previous Nabataeans? Were there two groups of people living at the same time, or could it be possible that the Nabataeans actually had two or three different languages, one for legal and religious dealings and one for common occasions?

North Semitic Alphabets

This alphabet was the earliest fully developed alphabetic writing system in the Arabian Peninsula. It was used in Syria as early as the 11th century BC and is probably the forerunner of all subsequent alphabetic scripts, with the possible exception of those scripts classified as South Semitic. It was apparently developed from the earlier writing systems seen in the Canaanite and Sinaitic inscriptions. The North Semitic alphabet gave rise to the Phoenician and Aramaic alphabets, which, in turn, developed into the European, Semitic, Indian, Nabataean and eventually Arabic alphabets.

South Semitic Alphabets

This term refers to any of a group of scripts originating in the Arabian Peninsula about 1000 BC. These scripts, most of which were used only in the Southern Arabian Peninsula, are of note because of their great age and because of the lack of any clear link between them and the North Semitic alphabet.

Of nine distinct scripts, only Safaitic, Sabaean, and Ethiopic occur outside the Arabian Peninsula. The Ethiopic alphabet, developed from Sabaean in Ethiopia, is the only one still in use. Its modern form is sometimes called Amharic.

The South Arabian alphabet was used primarily in the Sabaean and Minaean kingdoms in the Southern edge of the Arabian Peninsula. It appears around 500 BC, and continued to be used until around 600 AD, at which time the entire Arabian Peninsula was converted to Islam and Arabic became the most important language.

In Northern Arabia, and in the Nabataean region, South Semitic alphabets were used by the Lihyanite, Thamudic, and Safaitic languages.

Safaitic Inscriptions

The majority of Safaitic inscriptions and rock drawings are found in the volcanic basalt region, called the harra, of northeastern Jordan. Archeologists have found

inscriptions that record pastoral activities such as grazing camels, goats and sheep and relate that they migrate or that they encamped or spent the spring or winter in a particular place. Many of the inscriptions express grief over the death or absence of a friend or relative. These and other texts are often found in association with cairns, which were sometimes built over graves.

Interestingly enough, most of the deities invoked in the inscriptions are known from the Nabataean pantheon. The authors pray for security from enemies, for booty, and plentiful grazing, and frequently end with a curse on anyone who defaces the text. As with Thamudic inscriptions, the rock art that often accompanies these texts gives us a great deal of information about the fauna of the region, and the activities of its inhabitants. Hunting and fighting are favorite subjects and these drawings can tell us much about the weapons and tactics used by these nomads.

The camel, especially the young she-camel, which is found associated with many Safaitic inscriptions, played an important role in nomadic life (Winnett and Harding 1978:22). Other drawings depict things like a horseman with a lance and an animal with long horns, possibly an oryx.

A database of Safaitic inscriptions was developed by the Faculty of Oriental Studies in Oxford, England. The aim of the Safaitic Database was to capture the text and translation of each of the approximately 20,000 of these inscriptions, placing them on a web site, so that scholars and others can study them. By 1995, the vast majority of the sites mentioned by early travelers were rediscovered and marked on accurate maps while hundreds of previously unknown inscriptions were recorded. Of particular interest was the Al-Isawi site with over 2,000 inscriptions.

Thamudic Inscriptions

Thamudic graffiti is found throughout Nabataea. Both Thamudic and Safaitic inscriptions are found on rock faces and boulders scattered throughout the deserts of Arabia. Archeologists have discovered that much information can be gained by searching a limited area and making a comprehensive record of all the inscriptions and rock pictures. For example, in 1986 and 1987 three sites were selected for a systematic survey in the Wadi Judayyid area in the Hisma Desert of southern Jordan, near Wadi Rumm.

Small areas in the rock fields were marked out and a search was made by walking back and forth systematically across these areas so that, as far as possible, no inscriptions or rock drawings would be missed. Each inscription was read and an accurate copy made. All the material was then photographed in black-and-white and color and the inscribed boulders were located on a plan.

1,337 Thamudic inscriptions, one Nabataean text, and 560 rock drawings of various periods were found and recorded during these two years. The inscriptions from these sites offer prayers to Lat, Dushara, and Kutbay, deities that belong to the Nabataean pantheon. Some of the texts are concerned with hunting and many of the drawings depict the prey: ibex, ostriches and lions, as well as domestic animals, camels, horses, and dogs. The writers of the inscriptions often express their love for young women and relate their amorous adventures.

One, Two, or Three Languages

In his book on the Nabataeans, Doctor Negev of the Institute for Advanced Study in

Princeton, New Jersey suggested that the Nabataeans might have written in several different scripts. He felt that the Nabataean inscriptions were all basically religious in nature, engraved by pilgrims visiting religious centers. Detailed funerary texts do not express grief but are legal documents. For example, one inscription found near the city of Oboda in the Negev mentions King Obodas as 'Obodas the god'. Garm'alahi son of Taym'alahi dedicates the setting up a statue to him and then added to the Nabataean text he gives an explanation in Arabic why he made the dedication. It reads as follows: "*For Obodas works without rewards or favor, and when death tried to claim us, when a wound of ours festered, he did not let us perish*." Why did the inscriber change the language in the middle of the inscription? The religious dedication is in Nabataean and the explanation is in another script. Was the Nabataean script reserved for religious and legal purposes only?

Many warnings are written on tombs, and these are all in Nabataean. For example, one of 11 AD, lists who can be buried in the tomb. It then ends: "*Whosoever acts otherwise than is written above, let him be liable, in view of the sanctity of what is written above, to pay a sum total of 1,000 sl'in of Aretas to Dushares the god and to our lord Aretas the king similarly. In the month of Shebat, year 13 of Aretas king of the Nabataeans who loves his people*."

Dr. Negev observed that none of the Nabataean inscriptions, of which there are many thousands, refer to love, hate, war, or any other human activity. From these, we learn nothing of Nabataean life, only about royalty, military, and temple administration.

In the same geographical region as the Nabataean inscriptions there are some 15,000 written records in Safaitic, an Arabic dialect and script derived from one of the sophisticated south Arabian alphabets. These contain more than 5000 personal names as against 1,263 personal names recorded in the Nabataean inscriptions. Unlike the Nabataean inscriptions, few are of a religious nature; most allude to daily life. Many speak of love, grief, war, some even refer to wars of the Nabataeans, events never mentioned in the Nabataean inscriptions. They speak of digging wells, the disappointment of not finding water, the looking after animals, the hunt, and other aspects of daily life. There are also references to tribes and clans. In the Nabataean inscriptions, there are generally no such references.

It is interesting to note that only a few "Safaitic" inscriptions are found in the Negev and the Southern Sinai. There seems to be a correlation between the decline of the Nabataean script and the rise of the "Safaitic" script. On one hand, in areas where, by the end of the first century AD, the Nabataean script dwindles, the Safaitic inscriptions increase. On the other hand, in the Negev, and especially the Sinai, where Nabataean was in use until the very end of the third century, the "Safaitic" inscriptions are rare.

Looking at these facts, Dr. Negev suggests that the so-called "Safaitic" inscriptions are not the product of anonymous Arab tribes, but rather are the records of the Nabataeans themselves. The discovery of the Nabataean-Arabic bilingual inscription at Oboda, only confirms the well known fact that the Nabataeans did indeed speak Arabic.

Would it not be strange that a people who knew how to write from early times would not make records in their own language? Dr. Negev suggests that the Nabataean and Safaitic inscriptions should be treated as two components of the same human phenomenon and fitted together as two unequal parts of the same history that sheds light on the Nabataean culture as a whole.

But other archeologists protest that it would be ridiculous for a people to have two languages, and for them to use them in this way. They point to a few inscriptions that seem to break this rule as proof that Dr. Negev could not be right. However, I feel that it is not unusual for people to have a different religious or commercial language than their everyday language. This is common practice today among German Mennonites who use High German for their religious language, and a Friesian dialect or English for their everyday language. Even Latin was the lingua franca in Europe until the 18th century, used by academics and educational institutes, as well as the Roman Catholic Church, as a religious and academic language for many centuries.

So in the end, the Nabataeans remain as mysterious and elusive as ever. One of the most intriguing suggestions put forward yet is that the Nabataeans purposely adopted the South Semitic alphabets, so as to be able to secretly write their language. Since all the nations around them were using North Semitic alphabets, they could often make out what each other's writing said. By using the remote and different South Semitic alphabets, the Nabataeans could effectively make their writings illegible, even to others who spoke some Nabataean.

Is this what Diodorus meant when he said, "*after filling these reservoirs with rainwater, they close the openings, making them even with the rest of the ground, and they leave signs that are known to themselves but are unrecognizable to others?*" (XIX.94.6-9)

What was it that made these people so different from the others who lived in the Middle East at that time?

Chapter Eighteen

Desert Life

For thousands of years, the people of the Middle East have been moving from nomadic lifestyle to settled lifestyle. Cities offer better protection and are centers for learning and exchanging ideas. Why then did so many different groups resist urbanization, and why did they cling to their nomadic lifestyle?

From a nomadic point of view, it is simple. Ancient cities had narrow streets, crowded houses, and very poor sanitary conditions. In cities, one had to pay taxes and serve in a ruler's army. Camping spots, on the other hand, were open, breezy, and when too contaminated, you could simply move away to a cleaner place.

Therefore, the Nabataeans clung to their pastoral lifestyle, herding sheep, goats, and camels, living in tents, and escaping into the desert when danger was near.

From early times, they also settled in small communities on the outskirts of larger settlements. This can be seen at places such as Selah, across the valley from Busheira, the capital of the Edomites, and at Hegra, 12 kilometers from Dedan, the capital of the Thamuds and Lihynaites in Saudi Arabia. One can assume that they learned their trade as merchants by moving goods from one community to another, and selling them to the citizens of the neighboring city.

Modern parallels of this can be seen today among the Turkomen people who have established tent communities on the outskirts of the major cities of the Middle East. These Turkomen move goods between their communities, and then sell them locally. The Turkomen generally live in tents, and can be readily observed outside of Amman, Damascus, Beirut, Baghdad, and the cities of Turkey. Today, in the streets of Amman they market goods like Turkish rugs and Iraqi leather coats. Turkomen women and some men tell fortunes and claim to be able to work spells and magic, similar to gypsies, but the Turkomen are not gypsies. Like the gypsies, they are found all over the Middle East, and while they market goods all over the Middle East, they have not entered into the local urban culture, but rather maintain their own language, culture, and nomadic lifestyle.

I see the Turkomen people as a modern day equivalent to the early Nabataeans who quietly established themselves near the major centers of the Middle East, and who moved marketable goods from one community to another. In time, however, their growing wealth, and numbers allowed them to exert more and more influence, until they became a small kingdom in their own right.

But weren't the Nabataeans Bedouin? While some people consider the Nabataeans to have been Bedouins, there is no proof for this, and at the same time it is hard to define exactly what a Bedouin is. In the rest of this chapter, I would like to consider a number of Bedouin characteristics and compare them with Nabataean lifestyle.

Linguistic Consideration

The Nabataeans spoke an early form of Arabic, and modern Arabic script has been derived from ancient Nabataean cursive. There is no doubt that the Bedouin today have inherited their language from that spoken by the Nabataeans.

As we mentioned in the previous chapter some archeologists have suggested that perhaps the Safaitic and Thamudic inscriptions were really Nabataean inscriptions, and

that the ancient Nabataean language was used for official and religious purposes only. They suggest that Safaitic and Thamudic were common dialects spoken and written by the common people. If this is true, then we may know quite a bit more about the Nabataeans than was first thought.

Names

Most Arab tribes have names like *beni*, or bin something, which means 'son of.' A modern example is the famous tribal name Beni Hasan.

This form of tribal name is often found in Palmyra, Safaitic, and Thamudic inscriptions in Northern Arabia. The Nabataean inscriptions however do not include such names. Some have argued that perhaps this is because the Nabataeans were older than this practice, which seems to have developed during the later part of the Nabataean kingdoms by the tribes in the northern desert. On the other hand, it may have been a more slang type term that eventually became the common way to express one's tribal ancestry.

It is also interesting to note that a good number of Nabataean names are similar or identical to those used by Arabs today. In Nabataean times, a person whose name was derived from the term “servant of…” or “slave of…” some god were very common. From Nabataean inscriptions, we can discover that there were Nabataeans who had names such as Abd'allah. (slave of Allah) The question that arises is, did the Nabataeans influence the Arab Bedouin, or did the Arab tribes of the desert influence the Nabataeans, or were they one and the same?

Lifestyle

The Nabataeans were nomads who lived in tents until they settled and built a kingdom. Bedouin are also nomads and live in tents. It sounds similar, but it may not be so. There are many different groups of people in the Middle East living in tents, and they are not all necessarily Bedouin. Several years ago, I helped gather information for an ethno-linguistic survey in parts of the Middle East. During the survey, I discovered that the nomads of the Middle East included Turkomen, Gypsies (Dom and Zot), Felahine (farmers), and Bedouin. While these people may all live in tents, they each had very different cultural values and language.

During the time of the Nabataeans, many groups of people lived in tents and moved in the desert. Some of these were Arabs, and some may have been from Asian roots, like the Middle Eastern gypsies of today. It is possible that the Nabataeans were nomads in Arabia, but their roots may have come from elsewhere.

The Nabataeans were also known as camel breeders. Before the camel was domesticated, long-distant trade over land was not very developed. Very early trade was carried out by trains of donkeys. The camel, however, could carry much more than the donkey and soon camel trains became more common. In time, someone developed the camel saddle, a construction that sat on the hump of the camel, and allowed the rider to not only ride more comfortably, but also allowed for large bags and sacks to be attached to the sides of the camel. Was this a Nabataean invention? Camel saddles and bags appear on some Nabataean coins and some archeologists have suggested that it was the invention of the camel saddle that gave the Nabataeans an edge in the fierce trade competition.

Cultural Values

Some historians seem to make a large issue out of the Nabataean custom of avoiding wine. However, prior to the rise of Islam, there were a number of groups in the desert that avoided wine. Groups such as the Rechabites of Israel, the Mandaeans of Iraq, and the Nazarites of Judah all had a reputation for avoiding products of the grape, despite the fact that their religious metaphors are filled with references to wine and grapes. The Nazarite concept also included not cutting one's hair. Nazarite vows are first mentioned in the Bible as having been a part of the Old Testament law as laid down by Moses. (Numbers 6:1-3) This ancient tradition made specific mention that those taking the Nazarite vow had to abstain from wine.

Another Biblical group that abstained from wine was the ancient Rechabites mentioned in the Bible in Jeremiah 35. The Rechabites were a nomadic people who fled to Judah in 586 BC when King Nebuchadnezzar began his conquest of the Middle East. The Rechabites had prohibitions against agriculture, wine drinking, and living in houses. The Bible tells us that this was because of a vow that was taken by their ancestors, who were nomadic in lifestyle.

Diodorus Siculus, who wrote Bibliotheca Historica (60-57 BC), tells us this about the Nabataeans: "*They have a law neither to sow corn nor to plant any fruit-bearing plant, nor to use wine, nor to build a house*."

The Nabataean law went as far as making drinking wine an offence punishable by death. For many centuries, the grape did not figure in Nabataean art, especially in the Negev, but in later buildings at Khirbet Et-Tannur it began to appear. Apparently, as the Nabataeans became a world class power in their own right, they began to dabble in the practice of drinking wine; perhaps it came about because they left their nomadic lifestyle.

Strabo adds: "*Their leader holds many drinking-bouts in magnificent style, but no one drinks more than eleven cupfuls, each time using a different golden cup*" Of course, there is no mention here if the liquid they drank was wine or not.

However, wine drinking apparently really took hold, for during the Byzantine period in the Negev, five winepresses and two wine cellars were found at Oboda. At least three have been found at Sobata, and one at Elusa. Along with this, several of the Nessana papyri deal with the cultivation of grapes. At this time, Christianity was gaining a hold on the Nabataean people, and the old stigma about wine was started loosing influence.

It seems that while the Nabataeans started out refraining from wine, after several centuries wine became a way of life for them. On the other hand, many Arabs drank wine until the Muslim religion imposed a restriction on wine and other forms of alcohol. It seems that the practice of drinking or not drinking wine is not going to help us determine if the Nabataeans can be classified as Bedouin.

Bedouin View of Settled Society

For many centuries, there has been an air of distrust between the nomads of the Middle East and settled people. Nomads appreciate their freedom and ability to move. Settled people require a structure in order to maintain their way of life. As nomads interact with settled people, they tend to get entangled in the structure and eventually are forced to settle. Because of this, nomads have long felt a distrust and wariness of settled people.

Along with this, most of the nomads I know hate dealing with shopkeepers and

landowners. Nomads usually work at animal husbandry and sometimes at foraging. Merchants and landowners buy goods produced by the nomads, and the merchant usually controls the price. Even to this very day, there is a tremendous distrust between nomadic Bedouin and city merchants.

Now consider the Nabataeans. The Nabataeans were skilled merchants. They not only traded in a large number of goods, but they monopolized many areas of essential trade in the ancient Near East. This fact alone would isolate them from the typical nomadic Bedouin who made his life solely by animal husbandry.

The Nabataeans were nomads who were merchants. This alone made them unique. They would not have fit into the typical urban scene nor would they have fit into the nomadic school of thought. The Nabataeans would have been isolated in the middle, for they were both nomads and merchants, a unique blend in the Middle East, even to this day. As far as I know, only the Turkomen play a similar role in modern society.

Diodorus Siculus clearly gives us the reason why the Nabataeans lived in tents. He says, *"...they hold this because they judge that those who possess... things will be easily compelled by powerful men to do what is ordered them because of their enjoyment of these things. Some of them keep camels, others sheep, pasturing them over the desert.*"

Honor and Shame

Throughout this book, I have linked the Nabataeans to many eastern practices and thoughts. Many of their religious practices were adopted from Persia and India. Much of their cultural roots can be traced back to Bedouin and/or Persian background.

Having done this, we need to come to grips with what it means to have an eastern mindset. When one understands the eastern mindset, one can understand what powerful forces drove the Nabataeans, and motivated them to do what they did.

One of the greatest differences between eastern and western mindset is the role that fear, shame, and guilt play. In the west, early rulers generally used fear as the principal method of controlling society. A king might use military might and fear to control his empire. Priests and shamans played on people's fear of the unknown. Since the people did not understand nature, they often lived in a world of fear. Early religions were systems of appeasement, used to placate the role that gods would have in controlling the forces of nature, emotion (such as love), and even in military battles. In many instances, people also feared the spirits of the departed, and various forms of ancestor worship developed.

However, beginning with the Greeks, and expressed more fully in Roman thought, the concept of guilt as a controlling factor in society became more prominent. The Romans developed the '*pax Romana*' or Roman peace, where peace was brought about by everyone submitting to Roman law. The Roman illustration for this was the *fasces*. This fasces was a bundle of wooden sticks, fixed to a wooden pole, with an ax at the top or side. This symbolized the unification of the people under a single government. The ax suggested what would happen to anyone who did not obey the government. The Roman fasces is the origin of the modern word *fascism*. In this, they combined the use of fear and guilt, expressed through the development of Roman law, as a way of controlling society. As the Romans developed their set of laws, everyone, even the emperor was supposed to obey. People began to live within the limits of the law, rather than in fear of the ruler. This system became more prominent during the Byzantine system of governing people, and it is the basis of law and order in most western societies today. We obey laws, not

because we fear a policeman, but because we do not want to be guilty. While fear still plays a role, it is not the primary motivating factor in most western people's lives. The Romans understood fear and guilt, and thus they repeatedly called the Arab rulers kings and tyrants.

In the east, however, society was not, and is not, controlled by fear or guilt. The controlling factor in most eastern thinking is shame. Most eastern people's lives are tightly bound together with family. To shame one's family, tribe or nation is possibly the most dreaded thing most easterners could imagine. The opposite of shame is honor, and so most easterners work towards gaining honor for themselves, their family, tribe, and nation. Consequently, easterners can argue with a policeman, and even argue with a judge. The law is not necessarily seen as the highest authority in society, but rather the law is a guideline of how people should act. Breaking the law is simply going against the wishes of society, and not the ultimate evil. Being caught in the position of shame, or bringing shame upon those you love is far worse than breaking a law. In this, Arab, Persian, and Indian societies are very similar.

Dr. Sania Hamady, an Arab scholar and one of the greatest authorities on Arab psychology, tells us that Arab society is a shame-based society. "*There are three basic fundamentals of Arab society,*" she states, "*shame, honor, and revenge*." Shame is covered as much as possible, but when it cannot be hidden, it must be revenged. Other eastern cultures react differently to shame. In some eastern cultures, when a person is caught in a position of shame he simply commits suicide to preserve the honor of the family.

A great deal can be said about this, and much has been written on this subject in the last few years. While we cannot belabor the topic here, much as I would like to, it is important for us to realize that the Nabataean culture operated within the shame - honor paradigm. These two items continue to factor greatly in the nomadic worldview even today. Nabataean eastern heritage and the heritage of those they traded with in the east, operated on a system of shame and honor.

In the west, however, the Greek and Roman civilizations were moving increasingly to operating on the basis of guilt versus innocence. The Romans were not only developing laws, but they developed a whole legal system of lawyers, courts, and judges, similar to what we have today in the west. The whole purpose of this complex legal system was to be able to prove innocence or guilt.

Goddess decorated with dolphins

Nabataeans in Middle Eastern Society

Against this background, let us consider the place that Nabataeans held in the eyes of eastern society. First, they were merchants. In the Bedouin world, merchants were not to be trusted. The relationship between the nomads of the desert and those who bought and sold was very tentative. Today in America, many consider used car salesmen or door to door salesmen with distrust and even disgust. In this, the Nabataeans were the ancient version of modern day salesmen who talk big, tell lies, and exaggerate in order to make a sale and make a profit at the expense of the buyer. Strabo aptly described the Nabataeans as hucksters.

Second, the Nabataeans were known as pirates and thieves who plundered traders both on the high seas and in the desert. This surely did not make them popular with anyone.

Third, as we mentioned in the end of the first chapter of this book, the Nabataeans were involved in the skin trade, providing prostitutes to the Romans and wealthy people of their day. All down through history, those who profited from exploiting women have been looked upon with disgust.

Fourth, the Nabataeans had a reputation for fleeing from battle if the battle turned against them. Strabo and others ridiculed them for this shameful behavior.

Fifth, the Nabataeans were quick to adopt new ideas and practices. For the eastern

mindset, failure to conform to the status quo is damning and leads to a place of shame in the community. This is often hard for Westerners to understand. We in the west value our individualism, but eastern society usually values conformity. A modern example of this is found in the religion of Islam. The very meaning of Islam is to conform to the point of submission. The very object of public prayers and universal fasting is to bring conformity on all. There is an Arab proverb that can be translated "*Innovation is the root of all evil*." If one fails to conform, he is initially criticized, and, if he continues to refuse to conform, is put in a place of shame by the community.

Contrary to this, the Nabataeans were risk takers. They traveled where others did not, and adopted new ideas. The possibility of failure in some way can fill an easterner with dread, as failure leads to shame. The Nabataeans, however, experimented with new techniques and technology.

From this we can assume that the Nabataeans were held in disrespect by the societies around them, and so they were free to experiment and adopt, as they were already deemed failures and misfits by both the eastern Bedouin society and the western Greeks and Romans.

Questions

If the Nabataeans started out as a marginal group, practicing what was held as shameful by those around them, how did they change to become a great empire? Additionally, how could the Nabataeans manage to move from being an 'eastern-shame based' society to a 'western guilt-based' society? We will examine these questions in the next chapter.

Chapter Nineteen

The Price of Honor

First, let us review the three major periods of Nabataean history and the characteristics of Nabataean society during these periods.

Early Period (before 85 BC)

The early Nabataeans were nomads with early Arab thought and religion, known as pirates and raiders as well as traders and merchants. They were also known as pimps and prostitutes, caravan drivers, opportunists, deceptive, and tellers of tales and lies, and cowards.

Middle Period (85 BC - 106 AD)

During this period of time, the Nabataeans experienced sudden Hellenization. This Hellenization had been taking place among the settled people since the 4th century BC, but the Nabataeans seemed to only accept it during this period. Suddenly they started moving towards urbanization, rapid accumulation of extreme wealth, and rising status among the surrounding nations.

Later Period (106 AD onward)

During this last period of the Nabataeans, their civilization experienced total Romanization, and complete subjection with the dispersion of the wealthy merchants across the Roman Empire.

In this chapter, we want to concentrate on the social changes that would have taken place as the Nabataean people moved from each stage to the next. The move from their early period to the middle period would have entailed moving from a nomadic point of view to an urban point of view, and would also have included adopting Hellenization. In 106 AD, things changed again, and this time their culture changed as they moved from a Nabataean identity to being absorbed into the Roman Empire. While most cultures and civilizations made gradual cultural changes, the Nabataeans seemed to undergo radical social changes as their financial fortunes changed.

Early Period

As we have mentioned earlier, Diodorus describes the Nabataeans as nomads who: "*range over a country which is partly desert and partly waterless, though a small section of it is fruitful… they lead a life of brigandage and overrunning a large part of the neighboring territory they pillage it. Some had penetrated to the Mediterranean coast where they indulged in piracy, profitably attacking the merchant ships of Ptolemaic Egypt*."

He goes on to state: "*…they bring down to the sea frankincense and myrrh and the most costly of spices, receiving them from those who convey them from what is called Arabia Felix. They are conspicuously lovers of freedom, and flee into the desert, using this as a stronghold… They fill cisterns and caves with rain-water… making them flush with the rest of the land; they leave signals there which are known to themselves, but not understood by anyone else*."

As we stated earlier, many of the characteristics attributed to the Nabataeans by Diodorus would have made them detestable in the eyes of the established empires of the time, as well as detestable in the eyes of their fellow nomads.

In the Bible, the prophet Malachi tells us "*that Esau's mountains have been brought to ruin and his heritage given to the jackals of the wilderness.*" Several writers have wondered if this reference could be referring to literal jackals, or was it a derogatory name meant to demean the Nabataean people who occupied Edom after the Edomites.

If the Nabataeans were so detestable in the eyes of others, what would this do to their lifestyle? How would this affect some of the issues that we have been discussing in this book? Below, I list nine results that I believe could have had an impact on the Nabataeans as a result of their being ostracized.

First, the Nabataeans may have been denied water at tribal wells. Most wells in the desert are owned by those who dug them, or by those who control the area. Many times in the Bible and in other historical records we read of disputes over the ownership and use of wells. It was common, up until the establishment of central governments in this last century, for wells in the desert to be owned by one particular tribe. This tribe would deny the use of their wells to those they were ostracizing. As the tribes were often at odds with one another, denial of water in this way helped control the extent that other nomads could range in the desert.

If the Nabataeans were refused access to local wells, then, in order to move from one community to another, and in order to transport frankincense, they would have had to develop their own water sources. I believe that this was one of the main factors behind the Nabataeans passion for developing water collecting systems and why they would hide them in the desert and tell no one where they were. It is interesting to notice that some of these water collection systems are relatively close to established wells. These cisterns were probably back up watering spots in case the Nabataeans were denied access to the local water.

Later, after the Nabataeans took control of vast areas of land, they developed many more water collection systems in order to sustain agriculture.

Second, as the Nabataeans moved from the central Arabian deserts, they moved into villages that were close to centers of civilization but slightly away from them. For example, the Nabataeans lived at Selah near Busheira, the Edomite capital. The site of Selah is supposedly the place where Amaziah threw 10,000 Edomites off a cliff to their death. (2 Kings 14:7, II Chronicles 25:11-12) If this is the site, then perhaps the Edomites avoided it, as one would a graveyard today, and thus it made a natural place where the despised Nabataeans would settle.

A modern parallel of this might be found among the gypsies of the Middle East. These people are considered outcasts from regular society. They are nomadic and move from place to place but usually camp near major towns or sources of employment. Gypsy women are often sought out as experts on occultic or magical power, and as prostitutes. The men work as laborers in agriculture and metal work. Middle Eastern gypsies have no civic or political center, yet they have a leader, known as the '*king of the gypsies*.' He holds his court wherever he sets up his tent, but the city that he might reside in is never considered his 'capital'.

Third, the Nabataeans knew the desert well, and I believe they knew trails in the desert not known to others. Many of the Nabataean water sources in the desert are not

traditional watering sources, but rather water collection places, off the beaten track. As an example, in Wadi Rumm, the traditional ancient water sources were springs and wells, such as the well known today as Lawrence's well. The Nabataeans, however, developed water collection systems farther down the caravan trail, half way to Humeima. Was this because initially they did not have access to the well? In this was the case, the Nabataean caravans may have taken a different route from the ancient routes. This may also help explain the presence of many Nabataean graffiti in these remote locations.

Fourth, the Nabataeans developed secret symbols and signs. Diodorus Siculus, who wrote Bibliotheca Historica (60-57 BC), tells us "they leave signals there which are known to themselves, but not understood by anyone else." This is common practice today with the Gypsies of the Middle East, who continue to use their own language among themselves, and even in the presence of others. They use Arabic only for dealing with the outside world. Could Diodorus be referring to a Nabataean practice of writing with a South Semitic alphabet, which was unknown to the people in northern Arabia?

Fifth, did the Nabataeans develop dual or triple languages? Did they use the common trade language as well as a private protected language for religious/civic reasons? Archeologist Philip C. Hammond writes: "It has been suggested that even here the Nabataeans veiled themselves in confusion and that the written language, which has come down, was purely the official tongue of commerce and government, while the people retained their Arabic dialect as a spoken language. This might explain the gradual emergence of Arabisms in later inscriptions as well as the preponderance of Arabic names retained throughout the entire Nabataean period along with certain linguistic shifts from Aramaic usage."

Sixth, because they were misunderstood, they may have felt freer to use deception and bribery. Again, a parallel can be made with the gypsies of modern Jordan. Because of their low social status, they are often the scapegoats when a crime is committed. Consequently, since they are thought of as liars and thieves already, they sometimes use this identify to hide behind. Using lies and stories they quite often manipulate situations to their own purposes, especially when promoting the image that they can tell fortunes.

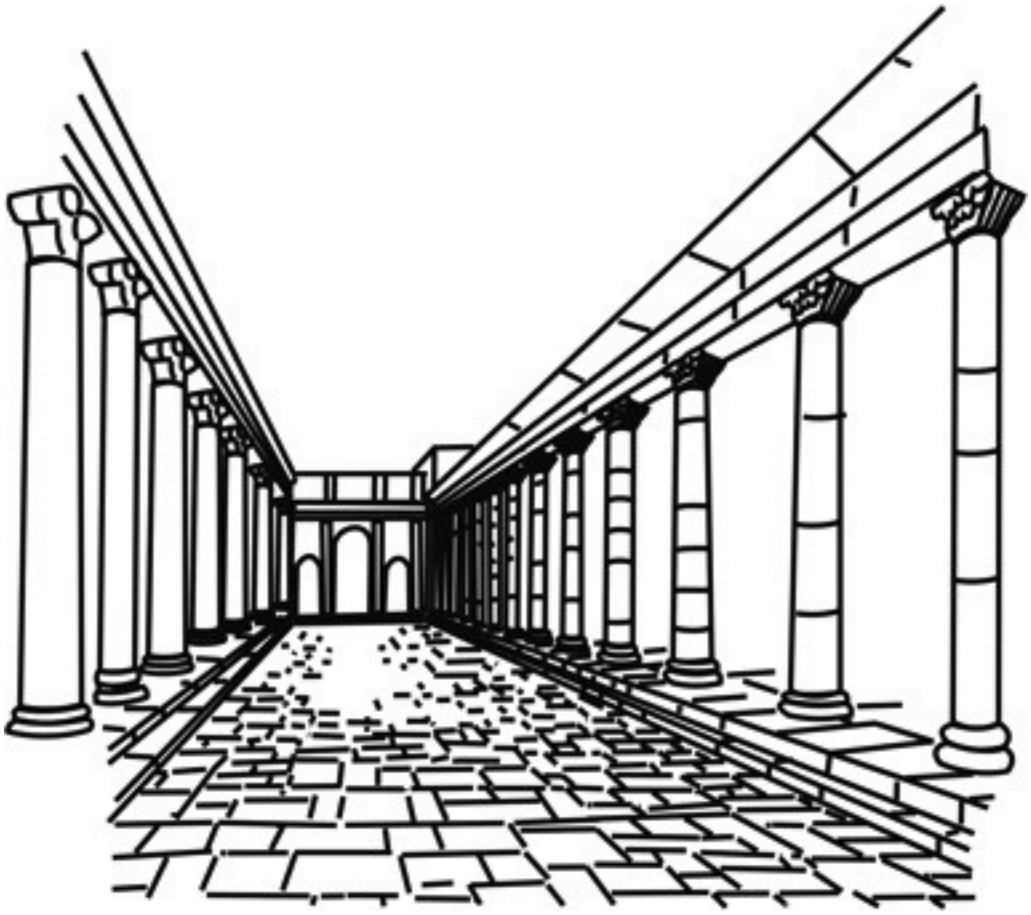
Seventh, did their low social status foster a desire to travel, especially to places where they were not known, and where they could be honorable? Why did the Nabataeans seem to enjoy going on such long journeys? They seem to have ranged from Europe to China. Could this desire to travel have been fueled by an unconscious desire to be in places where they were not known, and were respected as wealthy merchants? The civilizations of Southern Arabia, India, and China would have appreciated the Nabataeans who showed up with gold, silver, and other precious goods, and who bought the local produce to export abroad.

Eighth, did their low social status produce a desire to excel at things that others struggled with? For example, why did the Nabataeans persist on making perfectly square water reservoirs? Where did they get this fascination for perfectionism? Why did they appreciate and develop such fine pottery? Why did they suddenly start breeding such fine horses? Why did they build such magnificent temples and funerary facades? Was there an underlying sociological factor that propelled them to seek honor and to present themselves as honorable, successful people?

Ninth, could this desire for acceptance and honor explain what led them into such lavish spending of public funds for impressive public buildings? A modern parallel to this

might be the Arabs of Saudi Arabia and the Arab Gulf states. In the 1980's, I occasionally visited the palaces and courts of Sheik Zaid, and his family in the United Arab Emirates, and saw first hand the wealth and opulence of the oil-rich Arabs. On one occasion, I visited with Sheik Shekaboot, the eldest of the brothers. His palace was huge, with acres and acres of marble buildings. Yet, when we ate, we sat on the floor, and the meal was served on the same old beat-up trays he had used for years in the desert. In many ways, he was still the old Bedouin sheik of the desert, even though he was sitting on Chinese silk carpets in a marble mansion.

If one accepts the theory that the Nabataeans were held in low respect for many centuries, until they obtained sufficient wealth from their trading ventures to buy themselves into a place of respect among the ruling powers of the world, then many of the anomalies of the Nabataean people suddenly make sense. Otherwise, you have a nomadic people from the deserts of Arabia who did fantastic things without any explanation of how and why they rose above the people around them.



A reconstruction of the Colonnade Street that runs through the center of Petra.

Middle History

In 85 BC, Nabataean fortune changed. For the last several hundred years, they had slowly been gathering wealth, but in 85 BC they were suddenly catapulted onto the world stage. Damascus had been at the center of a world class struggle between warring Greek generals and now invading Roman forces. In 85 BC, Aretas III was invited by the citizens

of Damascus to be their ruler and protector. Imagine the honor he felt, as he suddenly became a world class ruler. Such a move was probably a great surprise to many. I am sure that the Nabataean ruler was scorned in many circles. Suddenly the gypsies, as it were, had stepped into political power.

Could this be possible? One parallel might be found in the independent Zott State in Mesopotamia. During the reign of Caliph Omar I (642 AD), the Arabs captured Haumatu-Zott, the district of the gypsy Zotts on the border of Iraq and Iran. (Le Strange, pg. 244) These gypsies then wandered for two hundred years until they managed to establish their own independent state, which lasted from 815 to 856 AD. A small number survived to become the Zott gypsies (Nawar) who wander as nomads today in Jordan, Syria, and Israel. Today these Nawar are despised by the settled Arabs, and are considered the very bottom of the social scale.

In the same way, one wonders what reaction the civilized world had, when the nomadic Nabataeans suddenly gained control of a world class city.

History tells us that Aretas III made a series of changes that immediately raised his level of honor in the western world. The first thing he did was adopt a Greek name, '*Philhellene*.' After this, it became increasingly popular for successful Nabataeans to use Greek rather than Nabataean names.

Second, he began to mint coins with his new name on it. These coins contained 97% silver, and were of equal value to that of the Roman coins of his day.

Third, Aretas III instigated the beginning of Nabataean architecture. First, temples were constructed. Then new cities were begun with public buildings. Within a few years, he had begun the construction of three religious cities - Petra, Egra, and Medina Saleh. Added to this, he had started to build a new capital city, Bostra, and other cities such as Humeima, that were founded at desert caravan crossings.

Fourth, he changed the primary mode of Nabataean transport from the camel to the horse. From this point on, the Nabataeans bred huge herds of horses to serve in cavalry units, and horse breeding took on a major role within the emerging kingdom.

All of these changes were obviously designed to raise the status of the Nabataeans from that of lowly caravan drivers or merchants, to a respectable, cultured, civilized people. Architectural designs were borrowed from every nation around them. Whatever would impress was implemented. Buildings like the Treasury in Petra were constructed in such a way as to impress those who entered Petra through the Siq, and contained architectural elements from a variety of civilizations.

However, not only was the entire civilization rapidly moving up the social scale, they were quickly adopting the western method of establishing laws and rules. It would take several generations, but within a century, the Nabataeans would have moved from being the lowly desert nomads, to being powerful, respectable merchants in the Roman Empire.

All of these changes had drastic effects on the kingdom. The cost was astronomical. Nabataean trade was stepped up. Taxes and profits were pressed to the limit so that money could be poured into extravagant projects.

Strabo comments about this stage of Nabataean life: "*The Nabataeans are… so much inclined to acquire possessions that they publicly fine anyone who has diminished them, and also confer honors on anyone who has increased them.*"

He goes on to say: "*Their houses are sumptuous, and of stone; and their cities are without walls on account of the peace which prevails among them."*

During the 191 years from 85 BC to 106 AD, the Nabataeans poured their wealth into anything and everything that would make them appear honorable and acceptable to the out side world.

This amazing effort had two effects. First, it produced the image that the Nabataeans desired. The Romans treated them with respect, even co-operating on several ventures with them. Secondly, however, this flurry of activity brought about the bankrupting of the kingdom. In their pursuit of honor, they poured their entire efforts into a facade of wealth and success.

Decline and Fall

In Appendix A of this book, I have supplied a list of the Nabataean kings (in the timeline). This list, however, is controversial. We are not sure exactly how many rulers there were. Even the Roman numerals behind a king's name have been added by western historians, and they are not found in any original inscriptions, not even on coins.

However, remarkably, there are only two kings out of the eleven, whose reigns lasted less than ten years. Aretas IV, the contemporary of Christ ruled for 48 years, and Rabbel II, the last leader, ruled for 36 years. This provides evidence of a very stable form of leadership. This is amazing when you consider that the Nabataean kings ruled by popular approval and not authoritarian rule.

Strabo tells us that the kings were concerned with the religious and social affairs of the people. This is probably why Syllaeus, who was known as the Epitropos, (brother, guardian or chancellor) did the negotiations with foreign powers. However, the final ruler, Rabbel II, seems to have simply given up and turned over his kingdom to the Romans. There have been a number of speculations about this by historians.

First, some historians assume that Rabbel II died, and it was then that the Roman army entered. However, there is no evidence for this. Rabbel was only a child when he came to the throne, and his mother, Shaqilath, acted as regent for six years until he was old enough to rule. If we assume he was 18 years old when he began to rule in 70 AD, then he would have been 54 years old in 106 AD. If he began to reign when he was younger, say 14, then he would have been only fifty years old in 106 AD. There is no mention of his dying at this time in historical records. He simply passes from the scene, being known as "*he who brings life and deliverance to his people.*"

Some historians have speculated that the Romans must have invaded the Nabataeans and that a battle must have taken place. Again, there is no evidence of this. If there was such a battle, surely Roman historians would have noted it in their history books.

So, strange as it seems, Rabbel II seems to have simply opened his empire up to Roman occupation. But it may not have been this simple. The Nabataeans were merchants and experts at bartering. Perhaps something else happened.

The Setting

Let's consider the setting of the stage, for the act when the Nabataeans opened their kingdom to the Romans.

First, Rabbel II witnessed the terrible destruction of much of the country to the north of him by the Roman army. The Roman Empire was now crushing those who chose to resist it. Jerusalem had been sacked in 70 AD, followed by a number of other major centers. The price to be paid for resisting Roman occupation was huge. Along with this,

the Roman Empire was the principal European trading partner of the Nabataeans and thus could not be offended. Also, in the Negev, hostile tribes had attacked a number of cities, and Meda'in Saleh in Saudi Arabia had been affected by civil war.

In this setting, Rabbel II may have done what any good Nabataean merchant would have done. He would have negotiated with the Romans, and for a price, he would have given up the throne, and allowed the Romans to occupy his land.

What was his price? Historical records do not tell us, but it is my feeling that the Nabataeans obtained an excellent price for their kingdom. The wealthy were allowed to move their businesses out of the restricted Nabataean inner kingdom and roam throughout the Roman Empire as Roman merchants. It is interesting to notice that Nabataean inscriptions have been found in Italy near Naples, and on the Isle of Rhodes where there is a Nabataean temple. This signifies that a rather large Nabataean settlement had moved to this location in the century that followed Roman annexation.

Added to this, Roman merchants, or at least, merchants on behalf of Rome, suddenly conducted an amazing trade with India, Ceylon, and Asia. In the Periplus Maris Erythraei shipping manual we have a record of some of the ports and trade items involved in this maritime trade. Later these merchants even transported an official party of ambassadors from Rome to Canton, China. Therefore, I am suggesting that it is possible that from 106 AD on, many of the historical references to Rome's merchant marine include reference to Nabataean merchants acting on behalf of the Roman Empire.

I assume that Rabbel II thought that since the Nabataeans had maintained their own ethnic identity for more than a thousand years, they would be able to do so during the future. Moreover, money was to be made when the entire Roman Empire would be open to them for trade.

The Agreement

We have no idea how and for what Rabbel II negotiated with the Romans. If there were records, they have not survived, or at least have not been found to this date. However, several interesting things did happen after the Romans entered the Nabataean Kingdom that give us clues as to what sort of things the agreement must have included.

First, trade with China and India via Aila and other Red Sea ports continued. This is amazing, as it would have made more sense for the Romans to bring their trading ships all the way up the Red Sea to an Egyptian port nearer the Mediterranean Sea and move the goods across the short strip of land to Alexandria and then on to Rome. The Romans, however, did the opposite. They built a beautiful Roman road from Bostra, in present day Syria, to Aila port in the south. There are stretches of this road that survive to this date in the south of Jordan. Any tourist to Jordan should make of point of seeing some of this road along which most of the trade from India and China passed into Europe. Surely, such a move as this could only have resulted from a negotiated agreement between the Romans and the Nabataeans. Otherwise, the Romans would have cut the Nabataeans completely out of the trade business.

Second, the Romans kept the Nabataean Empire together as a complete province of Rome, rather than splitting it into several provinces. The capital continued on at Bostra, and the Nabataeans continued to live on in peace. As part of the Roman and Byzantine empires, the Nabataean area experienced continued economic exchange with other parts of Europe. It was only in the 4th century AD that emperor Diocletian agreed that this

arrangement was impractical, and divided the province in such a way that would make more sense administratively.

Third, the Nabataeans who remained were free to become agriculturists. This provided employment and a great amount of freedom for the remaining Nabataean people. Consequently, the Nabataeans were never enslaved. Those involved as merchants could continue to do so, with the blessings of the Empire. Their profits would go into their personal pockets, but the taxes on their business would now be passed on to Rome. Nabataean merchants who did not want to be part of this agreement moved to Palmyra, Mocha and even Mecca.

Other Nabataeans continued on as farmers and horse breeders, providing racing horses for the race tracks of the Roman Empire. As a result, the Nabataeans lived at peace. Since Rabbel II was known as '*he who brings life and deliverance to his people*,' historians have assumed that this may refer to his putting down a rebellion in Saudi Arabia during his reign. But, perhaps it is a reference to his act of making a deal with the Romans, and buying life and deliverance for his people in the face of certain destruction at the hands of the Roman army.

Fourth, the Romans themselves did not immediately engage in active sea trade with India. The Periplus Maris Erythraei shipping manual tells us about the routes taken by ships from the Red Sea to India. Although the Periplus mentions ports on the east coast of India, it makes it clear (as Lionel Casson points out in his footnotes), that Roman ships did not usually visit these ports. Trade with India, China and the distant ports in Africa was in the hands of the Arabs (Nabataeans). The Periplus points out that some of these Arabs were the Arabs of Mouza. As archeologists and historians learn more about Mouza, it is becoming evident that the worship of the Nabataean pantheon became popular in Mouza, Mecca, and Medina as wealthy Nabataean merchants moved south to avoid Roman control. Islamic sources tell us that even the prophet Mohammed's grandfather, Abdulla bin Abbas, was a Nabataean who originally came from Kutha in the north.

Naval historians, such as David Whitehouse, call this Arab trade "remarkable" and warned of "*the danger of exaggerating the importance of Roman maritime trade relative to that of other trades in the same waters, simply because we know more about it.*" (Epilogue, *Roman Trade in Perspective, in Rome and India, The Ancient Sea Trade*.)

In the ensuing years, Nabataean and Arab merchants moved on to Alexandria, Rome, India, and China, building a trade business that would sustain the Roman Empire for many years in the future. Those that were left behind became farmers and horse breeders. No one was enslaved, and life continued as usual, only this time with the Romans doing the administration and maintaining the army. The Romans built the roads, fortifications, and public buildings and kept up the administrative structure of the empire.

This explains how Nabataean sea trade seemed to cease and how Roman sea trade suddenly exploded on the scene. It also explains how the 'Romans' knew where to go in India and Ceylon to obtain the goods that their civilization needed, without a single year's break in trade supply to the empire.

The Nabataean sailing ship, the dhow, with its distinctive triangular sails, suddenly became known as the Lateen sail (Latin sail), and identified with the Roman Empire.

It also explains how the Nabataean province continued on for another four or five centuries, despite the dwindling number of caravans that passed through it. The reason

was simple. Nabataean merchants now lived in the merchant cities of Alexandria, Gaza, Naples, and elsewhere. They were the trade barons of the Roman Empire after 106 AD, carrying on their trade in the name of the Roman Empire, rather than in the name of the Nabataean Empire.

As further proof to the existence of an agreement, it is interesting to note that when the Romans took over the Nabataean Empire, coins were minted in Trajan's reign referring to '*Arabia adquista*' (acquired) not '*Arabia capta*' (captured Arabia)

As I stated, it seems that it was Arab boats, not Roman, Greek or Egyptian boats that sailed passed the Red Sea into the Indian Ocean. (*The Periplus Maris Erythraei*) This seems odd when comparing the Vienna papyrus that describes a merchant agreement for goods from '*the spice-bearing land*.' The document was probably drawn up in Alexandria. Historians all agree that the agreement was a private enterprise, with no hint of government involvement, except for the paying of taxes in various ports. It is interesting to notice that many of those involved in the agreement had Greek names. Was this a Greek shipping agreement, or does it imply that there were Arabs with Greek names? If it does, then the only Arabs we know of who took on Greek names and culture were the Nabataeans. No one else fits this description.

In another papyrus containing the poll-tax register for the town of Arsinoe, for the year 72/73 AD, a person known as Gaion, also called Diodoros, is reported as being away in India. The records mention a transportation company that hauled supplies from Koptos to Myos Hormos and Berenice. All of this appears to be in the hands of Greeks, but might this not have been Arabs with Greek names?

Did Nabataean merchants ever live in Rome? As I stated, there is evidence of them in Naples and on the Isle of Rhodes. South of Rome, however, on the western cost of Italy is the ancient city of Puteoli (modern Pozzuoli) where the ancient Romans had their major harbor on the Southern Tyrrenian Sea. Much of the old city is now submerged beneath the sea, but it is visible from the air. Archeologists have now discovered a Nabataean temple under the sea, and have concluded from the evidence that there was a sizable Nabataean colony in ancient Puteoli.

But what of Rome itself? Recently, archeologists digging in the catacombs under Rome have come to the conclusion that in some instances people would gather in the Roman pagan catacombs to hold commemorative meals before the graves of the dead. As we have established, this was a Nabataean custom. Were these perhaps the tombs of Nabataean traders, who had taken on Roman/Greek names and were living in Rome? A similar situation seems to have occurred in Alexandria. Further study is needed to pursue all of the possibilities and to establish concrete evidence one way or the other.

Did the Nabataeans sell their kingdom for the right to be powerful private merchants within the Roman Empire? We may never know, but the evidence is certainly compelling.

Chapter Twenty

Architectural Glory

During the brief 200 year period when the Nabataeans exploded onto the architectural scene, their temples, tombs, and public buildings equaled or exceeded the structures of Egypt, Greece, and Rome. They poured their money into the construction of these tremendous structures and developed their own unique style by combining many various architectural patterns with the skills they already possessed.

For centuries the Nabataeans had hewn rock-cut cisterns out of the sandstone mountains of Arabia. They perfected their ability to cut rock, and produced perfectly square cisterns lined with superb cement plaster. When they turned to building funerary monuments and cities, they used the same techniques to cut sandstone mountains into the cities of Petra and Meda'in Salah.

Since the Nabataeans had traveled widely and were already familiar with the accomplishments of the great civilizations of the world, they knew the value of such things as ultrathin pottery, Hellenistic columns and finely carved statues and images.

Combining their own style with architectural elements from all of the civilizations around them, they produced unique structures, where every visitor could find a reflection of the greatness of their own civilization, combined with the greatness of others.

Columns

One of the architectural elements that the Nabataeans relied heavily on was the use of columns. Nabataean columns were made of sections that were considerably shorter than those of Greek and Roman columns. These were easier to produce and easier to assemble. Columns, both of wood and stone, have been used in the Near East for a long time. In ancient times, two columns were erected in front of King Solomon's temple. Egyptians, Greeks, and Romans all used columns in their architecture. So the Nabataeans used impressive columns in their buildings.

On top of the columns, ancient builders placed elaborate capitals, or decorative capstones. Many of these were very intricately carved. The Nabataeans, however, simplified the typical Corinthian capital by creating their capitals with eight points. The Nabataean capital was tastefully designed, very Nabataean in appearance, and obviously easier, faster, and less expensive to build than the intricate Corinthian capitals that the Greeks and Romans used. Originally, the Nabataeans used a forest of closely spaced pillars to support their roofs. The Temple of the Winged Lion in Petra is a case in point. However, by the first century AD, they had learned the technique of roof building, and wider spans were constructed, such as those found in the Qasr al Bint, which stands in the center of Petra. This temple was a Nabataean construction and not a Roman one as earlier historians had thought.

Obelisks

Obelisks were used in India to denote the presence of a deity. The Nabataeans adopted the obelisk, and used them to adorn some of their structures, as well as hewing two very impressive ones out of solid rock near the Great High Place in Petra. Other forms of the obelisk can be found in various wall carvings found around the Nabataean

Empire. An example of these can be found on the wall across from the dam at the entrance to the Petra Siq.

Crow Steps

Many Nabataean facades use a step design that was borrowed from Mesopotamia, where it was used for decoration as well as a roof fortification system. Assyrian seals depict men shooting arrows from behind such structures. In Hegra, the Nabataeans used a three-step design, while in Petra they generally used a four-step or five-step design.

Doorway Frames

Most of the doors on Nabataean facades were framed with pilasters (half columns). Some of these were round, but many of them were square. This design was borrowed from Hellenistic buildings, and is very effective in making the doorway stand out. In order to make doors, the Nabataeans used great wooden beams and solid wooden doorways.

Plastered Walls

From ancient time, Nabataeans had plastered the walls of their cisterns with a very hard waterproof coat of cement. Before they plastered, the Nabataeans prepared the walls of the cisterns with a rough pattern made by iron chisels. This pattern generally had perfectly parallel lines giving the wall a combed effect. Now, centuries later, almost all of the Nabataean plaster is gone, and the combed walls are visible.

Much of the original plaster has been removed by erosion and some of it by Arabs who were offended by the paintings on the plaster. Some plastered walls with paintings, however, have been preserved in Al Beidha, and some of the Nabataean cisterns east of Humeima near Wadi Rumm still have their waterproof coating of plaster.

Nabataean plaster has been analyzed by the Building Research Station at Warford, England. It is made of equal parts of crushed limestone and quartz sand, without burnt lime.

Decorative Features

The Nabataeans seemed to like decorations such as rosettes, animals, and geometric shapes. Their rosettes were formed of six oval, elongated spokes, radiating from a central half-sphere. These rosettes were commonly backed by a raised disk of various outlines. The Nabataeans also carved various animals including birds, lions, and dolphins. Hegra has several winged sphinxes, and several Nabataean facades contain serpents. Serpents played an important role in Greek and Roman religious cults. The Nabataeans seemed to love triangles, circles and blocks, and often incorporated these designs into their buildings.

Vases and Urns

Vases and urns were frequently sculptured to adorn the peaks of monuments. Later, Arab nomads became convinced that these urns and vases contained treasures. Many of them were destroyed or damaged as people shot at them to see if they contained riches.

Foreign Gods

The Nabataeans were not opposed to portraying foreign gods in their architecture. As an example, the name of the Egyptian goddess 'Isis' is found at least on one Nabataean stelae in the name “Abd-'Isi” or “Servant of Isis”, corresponding to the Coptic form “Peteesi”. This goddess had two sanctuaries near Petra, one in the Wadi Abu 'Olleqa and one at the entrance of the Wadi Siyyagh where she is represented sitting, as she is commonly protrayed in Egypt. At Petra, Isis was identified with Demeter, the goddess of fertility. A relief on the Treasury shows Isis as Tyche or “Fortune.” Her cow horns with a sun disc are a reminder of her role as cow goddess in Egypt.

The Crown

Crowns were sometimes featured in Nabataean architectural design. Sometimes a crown would consist of a representation of the white crown of Upper Egypt and two ostrich feathers from the Delta god of Busiris.

Male and female statues

Nabataeans had both male and female gods. Statues on their temples and monuments portray both males and females. In some early civilizations, all of the gods were male, but the Nabataeans recognized and portrayed both male and female figures.

It is interesting to note that in Egyptian architecture, the sculptor who produces an idol statue is literally called a *vivificator*, or *the man who gives life*. In other words, the craftsman who created idols was considered giving life to dead stone blocks, and the idea of making a statue was expressed by the word 'to beget,' or 'to give birth.' Jacob of Sarug speaks of a big idol (*salmet-a rabbet-a*) representing Artemis that Satan had offered to the inhabitants of Ephesus and he adds that at that time the whole world was full of “*male statues*” and “*female statues*.” A similar case in is cited in Southern Arabia where “male statues” are mentioned. (Maria Hofner, *Altsuedarabische Grammatik*. Leipzig 1943, p. 100). In classical Arabic, we have but one form for the word statue, that of '*sanam'* or idol.

So it seems that the idea of a statue as a living being was also eventually present at Petra and the visitor of a temple had the impression of speaking to a living being, male or female, when praying or presenting his offerings.

The Anguipeds

The anguiped was a monstrous creatures, half human and half serpent. Such creatures were found in Greek art from the 4th century BC. In Roman literature, Ovid mentions them in his Metamorphoses. So it is interesting that an anguiped is depicted on a basalt stele at the Nabataean site of Soueida. It is a male anguiped with the lower part of his body composed of two serpents twisted upwards. The anguiped is attacked by a mounted archer shooting arrows at the body of his enemy. One of the arrows has pierced the anguiped's body and the wounded monster clutches two big round stones in his raised hands and is about to throw them at his aggressor.

The archeologist Nelson Glueck ascribes Parthian origin to this scene, and it may be possible that there is a relation between the '*strap-legged people*' of India and Iran, who apparently crawled like serpents, and the western anguiped monsters. *The Himantopod*s who have no bones in their legs are first mentioned by Megasthenes (Pliny, NH VII 25) and were known in Persia as “*strap-legs*.” Fritz Meier has collected much information on

this subject (*Das Volk der Riemenbeinler*. Festschrift fuer Wilhem Eilers. Wiesdaden 1967, 341-367). It is assumed that the early strap-legs evolved in legend into serpents to make them more terrifying.

As this chapter demonstrates, the Nabataeans borrowed many of their architectural ideas from surrounding nations. It does not do them justice, however, to simply describe the various forms that are found in their architecture. One must visit the magnificent facades and buildings at Petra, Meda'in Saleh, Elusa, or Hegra in order to appreciate the effort that the Nabataeans put into their particular form of architecture. In ancient times, it would impress everyone from every culture, as they would find something familiar in each monument's style. Today, it is impressive simply for its monumental size and beauty.

Chapter Twenty-One

Byzantine Influence

Much of the material legacy that we have of the Nabataeans comes down to us from the Christian era. Over time, a slow Christianization of Petra and of many of the other Nabataean towns took place. As this happened, Nabataean temples were turned into churches and the gathering place that was originally in front of temples and facades eventually moved inside church buildings.

Along with this, a great deal of building started to take place. Houses and domestic buildings were constructed in large numbers in all settlements. The Nabataeans had truly made the full move from being nomadic to being settled.

First Christian Visit

The first Christian missionary to the Nabataeans was possibly the apostle Paul. In the Bible, in Acts 9, Saul (later known as Paul) set out to persecute Christians in Nabataean Damascus. He had previously obtained letters from the Nabataean officials to do so. However, on his way to Damascus, he had a vision in which he met with Jesus Christ. His life made a complete shift. When Paul arrived in Damascus, the Bible tells us that the city was under a governor of Aretas IV. This Nabataean governor ordered his soldiers to seize Paul. II Corinthians 11:32). Paul however, made his escape from Damascus by having friends lower him down over the city wall in a basket.

After his time in Damascus, Paul went into Arabia. (Galatians 1:16). Scholars are unsure how many years he spent in Arabia, but estimates put it at somewhere between three years and twelve years. Then he returned to Damascus where friends took him to Jerusalem.

From a Judean perspective, there was only one Arabia at that time. Josephus and other Jewish historians of the same era all refer to the Nabataean Empire as Arabia. And so it was that the Apostle Paul spent the first years of his Christian life within the Nabataean Empire. Surely this man, who was a champion of the Christian faith, and its most zealous and successful missionary, must have had some impact on the Nabataean lives that he touched during his three year sojourn in their area.

First Persecution

The first persecution of Christians that we know of took place under the Roman Emperor Diocletian. Some Christians were martyred and it appears that the number of Nabataean Christians decreased, although some early churches were being built in the various Nabataean cities in the Negev. Not long after this persecution, the Christian chronicler, Eusebius, thundered against Petra for being filled with superstitious men who had sunk into diabolical error.

Byzantine Empire Starts

In 330 AD, Emperor Constantine the Great transferred the capital of the Roman Empire to the Greek city of Byzantium, rebuilt it, and gloriously embellished it. It was then renamed Constantinople. Christianity slowly became the favored religion of the empire, but not without great struggles. As soon as Constantine began to tolerate

Christianity, construction of churches began everywhere in the Middle East.

St. Jerome

The oldest reference to Christianity and the Nabataeans comes from a description written down by St. Jerome in 390 AD in Bethlehem.

Jerome was born in 342 as Eusebius Jieronimus Sophronius, but was later known simply as Jerome. He was a gifted and diligent scholar, a master of languages, and a lover of books. He was a contemporary of Augustine of Hippo and John Chrysostom. Jerome was educated in Rome and in his mid-twenties was baptized as a believer. During the following years, he was attracted to the ascetic lifestyle, but moved from place to place. For two years, he was secretary to Pope Damasus until his death. Under Damasus' encouragement, he started work on a Latin translation of the Scriptures, which would one day become the Vulgate translation of the Bible.

After the death of Damasus, Jerome left Rome, and settled near Bethlehem, building a monastery for study and translation. From this point he not only worked on his translation, but also directed young men in Christian outreach. One of the men studying under him was Hilarion, who would later become St. Hilarion.

In one of his writings, Jerome describes the role of Hilarion as he ministered to the Nabataeans at Elusa in the Negev:

"*... the journey which he (Hilarion) once undertook in the Kadesh desert in order to visit his pupils. He reached Elusa with a great following of his disciples, and this happened on the day on which all the people had gathered in the temple of Venus for the annual festival. The goddess is venerated in the name of Lucifer, whom the Saracens worship. When it became known that Hilarion was journeying by (he had recently healed many Saracens possessed by demons), they went to welcome him. They bowed their heads and called in the Syrian (Nabataean) language 'Barech,' i.e. 'Bless us.' He received them politely and modestly and prayed that they should serve God and not the stone. Crying copiously, he looked up to heaven and promised that if they believed in Christ, he would visit them often. Through the wonderful mercy of God, he stayed there and did not leave them until they had drawn up the plan of a church and their priest had been instructed and given a wreath with the symbol of Christ.*" (Nicene and Post-Nicene Fathers, Ph. Schaff and H. Wace)

Pagan worship, however, continued in Petra on the eastern side of the Nabataean Roman province. Some years later, a certain monk, called Mar Sauma, felt called upon to rectify this situation. He and his forty brother monks were traveling around the area converting pagan temples into churches. They arrived in Petra in 423 AD to find the gates shut fast against them. Their demands to be let in, accompanied by threats of attack and conflagration if they were not, coincided with a rainstorm of such intensity that part of the city wall collapsed and they managed to get in.

The whole episode was deemed to be of truly miraculous significance, as there had been an unbroken drought for four years and the impressed pagan priests converted to Christianity.

In the mid-4th century, Bishop Asterius of Petra was named as a participant in the Arian controversy, that long and bitter dispute over whether Christ was of one nature with the Father, or merely shared a similar nature. Asterius started as an Arian but ended up on the orthodox side. For this he was banished by the pro-Arian Emperor Constantius,

but later was recalled by the more tolerant Julian the Apostate.

The Urn Tomb in Petra was converted into a cathedral in the 4th century AD

Church Structures

Nabataean churches were all very similar in style, and contained large baptismal fonts, usually large enough for baptizing adults by immersion. The first churches themselves were quite small, but over time, they were extended to contain two or three aisles. It is unclear whether people stood or sat during the church services. Today, people

stand in many of the eastern churches while in the west people tend to sit in church.

In the fifth and sixth centuries, Christians began burying the dead in church courtyards, and some people were even buried beneath the floors of churches. In Europe, during the fifth and sixth centuries, only members of the priesthood or the ruling class were usually allowed to be buried within the precincts of the church, but in the Nabataean setting, ordinary believers were also put to rest beside the altar.

In the Negev, especially, in various places such as Shivta and Ruheiba, monasteries were started. At first they were built quite far from existing settlements, but over time, they became agricultural centers themselves and attracted new settlers. Thus, they grew from being simple monasteries into small centers for agriculture and learning.

In Nessana, one of the flourishing Nabataean cities which had been given the official name *Palaestina Salutaris*, a large number of papyrus scrolls were discovered during an excavation in the 1930s. One of the scrolls described the deeds of St. George. George was a young and wealthy nobleman who resisted the anti-Christian Roman laws of his day. The scroll claimed he was killed three times, only to be resurrected three times. In the end, he was imprisoned in the house of a widow. There he performed many miracles. He made a dead branch blossom, brought a dead ox back to life, healed the son of the widow of his blindness and brought the dead back to life. (*Excavations at Nessana*, Vol. II, Casson, L. and Hettich, E.L.) Today there is a monastery dedicated to St. George near Shivta in the Negev.

Nabataean Bishops

The bishop of Aila (Aqaba) took part in the Council of Nicea as early as 325 AD. A bishop named Abdallah from Elusa was present at the church council of Ephesus (431 AD). The bishops of Petra were among the participants at the synods of Sardica (342 AD) and Seleucia (359). One of these bishops even had the name of Aretas.

Christian Influence on History

The Christian religion eventually brought about the end of the bitumen, frankincense, and myrrh industry because of the now widespread belief in a resurrection body. Christians also preferred bread and wine rather than frankincense to be used during worship. As a result, cultivation of grapes became common throughout the old Nabataean Empire.

Heretic Haven

Petra also seems to have become a place of exile for troublesome or heretical priests, prelates, or prominent laymen who failed to agree with the Emperor or with the decisions of church councils. The most famous such exile was probably Nestorius, one of the most vocal promoters of the Nestorian heresy, which was condemned at the Council of Ephesus in 431. The city must have been in a prophetically lamentable condition by then, well chosen for those sentenced to contemplate the error of their ways, for an earthquake on 19 May 363 had destroyed half of it, and society seems to have declined and diminished afterward.

Nabataean Art expressed in Christian Worship

Elements of Byzantine and Coptic Christian art in various areas of the Middle East

show the influence of Nabataean art forms. Byzantine 'rural style' lozenge pattern, and stonework from a number of Byzantine sites, especially in the south, all exhibit Nabataean influence, as do certain examples of Coptic stonework in Egypt.

The archeologist, Glueck, asserts that even after the Islamic conquest, Nabataean art had an influence on Umayyad art, as is evident at Khirbet Mefjer, Qasr Hallabat, and Qasr el-Heir el-Gharbi.

Byzantine Tax

It is interesting to notice that the tax imposed by Byzantine authorities on the Nabataean towns of the Negev was much lighter than that imposed on towns lying north of the Beersheba Plain. This may have helped the towns of the Negev to survive. This changed completely after the Muslim invasion in 636 AD.

Once the Muslim administration in Gaza was organized, Muslim authorities began to impose heavy taxation on the inhabitants of Nessana and the other towns that survived their onslaught, with demands for land taxes to be paid in gold. In addition, every few months the town was forced to supply the Muslim army with wheat, oil, and money. In the period between November 674 and February 677 AD, Nessana paid taxes in the form of 1,146 modii of wheat (an additional quantity of 270 modii was paid in 689 AD) and 1,146 sestarii of oil (and additional 270 sestarii of oil in the same year). There was also a food tax in the same period. To meet these demands, Nessana paid 1,180 modii of wheat, 610 sestarii of oil, and being short of agricultural products, these were compensated for by more than 27 solidi in gold, equivalent to the price of 407 modii of wheat and 401 sestarii of oil.

About 685 AD, the following letter was sent to Nessana: "*Get whatever you can collect for me since I have authority over the quota of... Make sure that you do not delay an hour in bringing the poll tax and it be found sufficient for the second installment at Gaza... peace be with you*!"

Along with this, people and camels from Nessana were recruited for compulsory service in such distant places as Caesarea and Scythopolis.

It is no wonder that in the 7th century AD, the town sent a letter to the Governor to ask for relief, stating '*for they cause us and you serious distress and are unable to bear the burden of such taxation*.'

The end

On 9 July 551, a devastating earthquake reduced most of what remained of Petra to heaps of rubble. It was never rebuilt, and soon the bishops departed and all records came to an end. This earthquake also destroyed many of the towns in the Negev. Many of these were never rebuilt. In 633, Islamic power replaced the Byzantines of the regions and the remaining Nabataean towns were taxed out of existence. Since that time, Petra and the other Nabataean cities became forgotten places as the focus of attention moved to the centers of the Arab Islamic World.

Islamic Records

Arab literature mentions many Nabataean contributions to Islamic culture. Abu Bakr Ahmad ibn Ali ibn Qais ibn Wahsiyah an-Nabati, who was a physician and botanist with interests in agriculture, animal husbandry as well as alchemy, magic and toxicology,

wrote around 900 AD. He was not only a scholar of his day, but perhaps the greatest spokesperson on behalf of his illustrious ancestors to whom he attributed nine-tenths of all scientific knowledge known. His books are known as Al-Filiaheh an-Nabatiyah (904 AD) and As-Sumum wat-Tiyaqat (900 AD).

Ibn Wahsiyah claimed that his ancestors, the Nabataeans, were held in low regard by the Iraqians of his day. The group of Nabataeans living in Iraq were not receiving the honor and respect he felt they were due. Presumably, this group, that Ibn Wahsiyah represented, descended from a Nabataean refugee population. This appears to be the last reference to the Nabataeans as a national body. After Ibn Wahsiyah's comments, the Nabataeans disappear from historical view.

Chapter Twenty-Two

Nabataean Sites Today

For many years, Nabataean archeologists were split into two camps. One group of archeologists was in Israel and the others were based in Jordan. Until the 1995 peace agreement between Jordan and Israel, Jewish archeologists were not allowed in Jordan, and Jordanian archeologists did not have access to the sites in Israel. It was even difficult for foreign archeologists to travel back and forth. Consequently, over the years, two different camps of archeologists developed.

First, those in Jordan had access to Petra, and a great deal of effort was spent in excavating this and the related Nabataean sites in the surrounding mountains. Most of these sites had public buildings and temples, but archeologists found few remains of dwellings.

The Jewish archeologists however, concentrated their efforts on the Nabataean cities in the Negev and had opportunity to excavate many domestic buildings. Happily, today this situation is starting to change. Nabataean sites are also being set aside as heritage parks on both sides of the border and communication is improving between the two groups of archeologists.

Petra Park (Jordan)

Today Petra is once again the center of attention, at least from a Middle Eastern perspective. In 1991, 41,000 tourists visited Petra. In 1997, nearly ten times that number made the long trip through the canyon mouth to stand in awe before the Treasury, and then to move on through the ancient city streets lined with tombs, temples, and warehouses.

The country of Jordan borrowed some 23 million dollars from the World Bank to build new roads, tourist facilities and other infrastructures in Wadi Mousa, the new boomtown that has sprung up at the gate to Petra. While this did much to help the flow of tourist traffic, only a small amount was set aside for site preservation.

In 1993, Jordan set aside a hundred odd square miles of rugged canyon country as a national park. All through it are steep walled canyons and old caravan roads that once moved frankincense from Oman to Gaza, silk from China to the palaces of Rome, and bracelets of gold from workshops in Aleppo to the markets of Yemen.

It is possible to arrange a tour to visit many of the major Nabataean sites. Tours to Petra are arranged from many places in the world, as well as within Jordan itself. The Internet advertises many of these tours. It is also possible for independent tourists to find their own way to Petra once they are visiting Jordan.

For those wishing to visit Nabataean sites, Petra is probably the most important place to visit. There are numerous travel guides that can help you on your visit, or you can hire a guide at the Government Resthouse where the entrance fees to Petra are to be paid.

Rather than list all of the Nabataean sites that one should see, I would like to comment on some of the lesser known Nabataean sites that are within the reach of a tourist with a rented car. Sometimes buses and taxis also service these points.

Al Beidha (Jordan)

After Petra, Al Beidha or Little Petra is the next most important site for the casual visitor. This site is only a few kilometers from Petra and easily accessible by taxi or rented car. This miniature version of Petra contains a number of notable tombs with dining halls, painted plaster, and a nearby Pre-Pottery Neolithic settlement. A number of crusader castles can also be visited while in Petra, or on the way to Al Beidha.

Arab Wall (Jordan)

An easy place to view the Arab Wall is near Al Maregha, the first town south of Ma'an on the desert highway. If you are coming from Ma'an towards Aqaba, drive to the Al Maregha corner and make a U-turn. As you come back up the hill, take the first dirt track off the highway to your right. You can drive this dirt track with a regular car on condition that if it has good clearance. Drive until you get to the top of the hill, (perhaps 1/2 a kilometer.) On your left, you will see the wall as you drive. On the top of the hill, the wall will be on your left, as well as the foundations of two structures (towers or barracks?) and a courtyard. Park here. From this hill, you can see the wall stretching away on both sides.

On the southeast side it goes to the next hill where a small tower is situated. Far beyond this hill you can make out the microwave towers at Ras al Naqab. The south end of the wall ends at a fort east of these towers. If you decide to follow the track south, make sure you have a vehicle with plenty of clearance, such as a pick up or a four-wheel drive. You will eventually come to a Nabataean cavalry station and town, located 2.5 kilometers east of Abu Lissan.

On the northwest side of the hill, the wall passes the town of Al Maregha and stretches on to Al Maregha Fort (several kilometers away). You can clearly see the fort and should be able to make out the wall stretching over the hill northward.

Aqaba (Jordan)

There are two sets of ruins in Aqaba worth visiting. First, you can visit the ruins of Aila the old Aqaba town beside the new Mövenpick Hotel on the beach. These ruins are well presented with signs and maps. Farther east, on the waterfront, is the old Turkish fort and museum. There are other locations in Aqaba such as the ruins of a Roman villa. Almost all the other traces of early civilization in Aqaba have been wiped out.

Avdat (Negev)

This city is situated on a ridge rising about 80 meters from the surrounding plain. The city has many ruins, an underground necropolis, and the remains of several churches. There is a visitors center with a small museum and a video that gives a flavor of the life of the original inhabitants.

Elusa (Negev)

This city can only be reached with a four-wheel drive. It is covered in sand, but has a very impressive church, a theater, as well as inscriptions.

Humeima (Jordan)

The modern town of Humeima is marked on most Jordanian road maps. It is located between Ma'an and Aqaba. To find the ancient ruins of Humeima, you need to look for

the town called 'Old Humeima.' If you are driving south, down the escarpment, take note of the spot of green on your right. This area is now a farm, but in early times it was a spring. There are a number of ruins here that you can visit. From this spring, the Nabataeans built an aqueduct 27 kilometers out into the desert to the town of Humeima.

As you travel down the escarpment, you will come to the first village known as Dabat Hanut. Drive to the next small village, and notice some trees and a small store and a few buildings on your right. There is a small sign that says Al Humeima Cooperative Touristic Association, Ministry of Tourism. Immediately after the store, turn right onto a narrow hard surfaced road. (If you miss the corner, you will drive to the new town of Humeima).

Travel down this road 8 kilometers until you come to a place where you can see a dirt track off to your right. In the wadi, just off the road, the municipality has paved the track through the bottom of the wadi. If you have a car with low clearance, park here, otherwise follow the dirt track through the wadi and on into the town. Park near the first building and explore from there.

As you explore the ruins, look for signs of the aqueduct, the restored and currently used pool at the end of the aqueduct, ancient underground water cisterns, churches on the south end of town, (notice the clever use of old aqueduct stones on the stairs, and the crosses on the church floor where people where buried), and the Abbasid mosque where the Abbasid dynasty started. Notice the foundations of the old mosque underneath the newer one. On the south east corner of the city, near the newly excavated pool is the foundation of a very large Roman fort.

Mampsis (Negev)

This Nabataean city has houses, churches, a city wall, and even a brothel. The British Mounted Police constructed a building here, which has been converted to a restaurant known as Dushura.

Nessana (Negev)

This city is easily reached as it is very close to the Israel-Egypt border. It has a number of interesting ruins, but excavations have been very limited.

Ruheiba (Negev)

This city is 12 km south of Elusa, and is located in a nature conservation area. It can only be visited by agreement of the authorities. The city has three large churches, several impressive buildings, and several very deep hand-dug wells.

Selah (Jordan)

Selah is located south of Tafila, along the King's Highway in Jordan. It is a bit of a scramble to reach the mountaintop, but it is well worth the trip if you can find the Assyrian inscriptions there. Selah was a major hub of Nabataean trading, and the scenery is breath taking. On the west and northwest corners of the top of Selah are two well preserved high places.

Meda'in Saleh (Saudi Arabia)

This Nabataean city is located in Saudi Arabia, approximately 320 kilometers south

of Petra. A tourist visa to Saudi is required. These are usually only given to pre-arranged tours. This Nabataean city has 131 tombs spread out over 13.4 kilometers. The city proper has a siq, city walls, towers, water conduits, and cisterns.

Wadi Rum (Jordan)

Wadi Rum is a favorite tourist spot, and the location where the Lawrence of Arabia movie was filmed. It is very picturesque and typical of the desert in the Hisma region of Jordan. This spot gives the tourist a good idea of what it must have been like to travel by camel caravan to Southern Arabia. Below Jebal Rum are a Nabataean temple and a small Nabataean village. It is possible to hike up a small crack in the mountain to visit a natural spring (known as Lawrence's Spring). Along the way it is possible to view the old Nabataean aqueduct, and beside the spring are a number of quite clear Nabataean inscriptions. Tours can be arranged from Wadi Rum to see other inscriptions and drawings in the desert.

Conclusion

The Nabataeans were truly an amazing people, and the ruins of their ancient civilization are well worth seeing. However, the Nabataeans were far greater than their ruins can ever communicate, for they were instrumental in bringing east and west together for almost half a century.

RESOURCES

Appendix A

Short Timeline of 1500 Years of Nabataean History

pre 1000 BC Nebjoth, the first-born of Ishmael (Gen. 24:13)

700 BC Isaiah mentions the people of Saba, and the people of *Nebaioth*,(Isaiah 60:1-7)

627 BC *Nabate*, found in seventh-century B.C. Assyrian sources

586 BC Nebuchadnezzar captures Jerusalem and the Jewish people are sent to exile. Tribes of Arabia start to move northward

312 BC Antigonus, the Seleucid ruler of Syria twice attempts to attack and plunder the Nabataeans living in Edom. The Nabataeans chose to buy off Antigonus with costly gifts, a pattern they would use in the future when dealing with invaders

169 BC Aretas I, "*Tyrant of the Arabs*" and "*King of the Nabatu*" is mentioned in II Maccabees 5:8. During this time the Nabataeans were beginning to expand their domain from Biblical Edom into Moab

145 BC Josephus (Antiquities XIII 131) mentions a Nabataean King Malichus reigning abut 145 B.C. but there is no other supporting evidence for this

120-96 BC Aretas II, "*Erotimus, King of the Arab*s," is mentioned in connection with the siege of Gaza (c. 96 B.C.) by Alexander Jannaeus (103-76 BC). The city appealed to Aretas for help but it arrived too late.

90 BC Obodas I, *King of the Arabs*, was the son of Aretas II

93 BC Obodas defeated Alexander Jannaeus and gained control of the Hauran and Jebal Druze

87 BC Rabbel I, another son of Aretas II reigned for less than a year. Antiochus XII Dionysus of Damascus (87-84 BC) set out to fight the Nabataeans. Rabbel fell in battle but the Kingdom was saved

87 BC Aretas III, "*Philhellene*," becomes leader and conquers northern Transjordan and southern Syria

85 BC Aretas II becomes ruler of Damascus at the request of its inhabitants

62 BC Pompey's general Scaurus devastated the area around Petra but could not take the city. Again, the Nabataeans brought their freedom by paying tribute

62 BC Malichus I becomes ruler

48 BC Malichus I sends camel cavalry to help Caesar in Egypt

30 BC Obodas III becomes ruler. Later he is known as "*The Divine Obodas*" or "*Zeus-Obodas*" after his death. Obodas is overshadowed by his chief minister, Syllaeus

26 BC Failed expedition by Aelius Gallus into Southern Arabia

5 BC Syllaeus executed in Rome. Obodas was buried in Oboda, the town in the Negev named after him. Obodas was deified and an impressive temple was raised in his honor at Oboda. His cult persisted until the third century

9 BC Aretas IV made leader. He is known as "*Philopatris*" was called "*the King of the Nabatu, who loves his people*." During his reign, the Nabataean Kingdom reached its zenith. He was in control of Damascus when his Ethnarch tried to arrest the Apostle Paul

40 AD Malichus II was the first-born son of Aretas IV

67 AD Malichus sends an army to help Vespasian in the siege of Jerusalem. Malichus lost control of Damascus but retained the territory to the east and southeast. Nomadic tribes from Arabia began attacking the southern parts of the Kingdom, penetrating into the Negev where they destroyed Oboda and forts on the Petra-Gaza road

70 AD Rabbel II is leader. He is known as "*He who gives life and salvation to his people*." The earliest inscription with this title dates AD 88, comes from Oboda and is connected with agriculture. This may indicate that he earned this title by subjugating the Arab tribes and laying the basis for dry farming and horse raising. Like his father, Rabbel spent much time in Bostra in Nabataean Syria

106 AD The Roman Legate of Syria, A. Cornelius Palma, on behalf of Emperor Trajan, annexed Nabataea and incorporated it into the Roman Empire as *Provincia Arabia*

114 AD Via Nova Traiana road completed between Bostra and Aila

130 AD Emperor Hadrian Visits

363 AD First earthquake levels much of Petra

390 AD Nabataeans in the Negev convert to Christianity

423 AD Nabataeans in Petra convert to Christianity

551 AD Second earthquake levels more of Petra and cities in the Negev

629 AD Islamic armies invade

747 AD Major earthquake destroys much of what is left of Nabataean cities

900 AD Final reference to Nabataeans in Islamic Literature

Appendix B

Ancient Historians

This appendix will provide you with some background information on the ancient historians that I quote in this book. Their writings are crucial to our understanding of ancient history. A complete understanding of history, however, must take into account current archeological finds as well as the writings and opinions of the ancient historians, for all of the ancient historians wrote from their own perspective, and many of them were influenced by the current political, religious, or sociological thoughts of their day. Along with this, some of these historians were not eye witnesses, but rather wrote what was reported to them from others, (who may have obtained the information from still others).

Agatharchides of Cnidus (2nd Century BC)

Agatharchides of Cnidus lived in the 2nd Century BC during the Ptolemaic Dynasty and wrote a book entitled *On the Red Sea*. This volume made use of information available from the royal archives in Alexandria as well as his own eye witness reports. His book is very helpful in providing us with an eye witness account of the merchant trade of that time, and helped prove to the Ptolemaic Dynasty that there were some important and beneficial side effects of the Alexandrian stimulus to trade.

Arian (2nd century AD)

Arian was a Greek historian and philosopher who was the author of a work describing the campaigns of Alexander the Great. His book is entitled *Anabasis*, (Xenophon also had a work by the same title). The first seven books describe Alexander's military exploits. The eighth book, the *Indica*, tells of Indian customs and the voyage of Nearchus in the Persian Gulf.

Arian's other works include the *Encheiridion*, a manual of the teachings of Epictetus, the Stoic philosopher whose disciple Arian was. This work was much used in the European Middle Ages as a guide to the principles of the monastic life.

Athenaeus (second century AD)

Athenaeus was a Greek grammarian and author of *Deipnosophistai* (*The Gastronomers*,) a work in the form of a symposium, in which a number of learned men, some bearing the names of real persons such as Galen (famous in medical history), who meet at a banquet to discuss food and other subjects. It is composed of 15 books, of which 10 have survived in their entirety, the others in summary form. The value of the work lies partly in the great number of quotations from lost works of antiquity that it preserves, with nearly 800 writers being quoted, and partly in the variety of unusual information it affords on all aspects of life in the ancient Greco-Roman world.

Callimachus (305-240 BC)

Callimachus migrated to Alexandria because of his attraction to its famous library. King Ptolemy II Philadelphus of Egypt gave him employment in the Alexandrian Library, the most important in the Hellenistic world. Of Callimachus' voluminous writings, only fragments have survived, many of them discovered in the 20th century. His

most famous poetical work was the *Aetia* (Causes), probably produced about 270 BC. This work is a narrative elegy in four books, containing a medley of recondite tales from Greek mythology and history by which the author seeks to explain the legendary origin of obscure customs, festivals, and names.

Dio Cassius (2nd-3rd century AD)

Dio Cassius was a Roman administrator and historian, the author of *Romaica*, a history of Rome, written in Greek. It is now recognized as one of the most important authorities for the last years of the republic and the early history of the empire. His history of Rome consisted of 80 books, beginning with the landing of Aeneas in Italy and ending in the reign of Alexander Severus (222-235 AD). Much of this work is preserved in later histories by Constantine VII Porphyrogenitus, John VIII Xiphilinus, and John Zonaras.

Diodorus Siculus

Diodorus was a Greek historian, born in 90 BC in Agyrium, Sicily. He was a contemporary of Julius Caesar and Augustus, first emperor of Rome. Diodorus traveled in Asia and Europe and lived for a long time in Rome, collecting the material for his great *Bibliotheca Historica* (Historical Library). This work is a history of the world in 40 books, from the creation through the Gallic Wars and up to the first years of the empire. Of this ambitious work, the first five books are preserved in their entirety, the next five are wholly lost, the next ten are complete, and considerable fragments of the others have been preserved. Diodorus died in 21 BC.

Epiphanius

Epiphanius was a Christian prelate and one of the Church Fathers. He lived from 315 to 403 AD. Epiphanius was born in Palestine but lived as a youth in Egypt. On his return home he was ordained a priest. He founded a monastery near Eleutheropolis in 335 AD, which he directed for 30 years. In 367 he was nominated bishop of Constantia (formerly Salamis) in Cyprus and held office until his death. He encouraged the growth of monasticism, supported traditional orthodoxy against the heresies of the time, and attended the synods of Antioch (376) and Rome (382). He was, in particular, a zealous antagonist of the Christian writer and teacher Origen. Among his works are *Panarion*, a treatise on heresies; *Ancoratus*, a polemic against Origen; and *Anacephaloeosis*, summaries of theology and ritual. The writings of Epiphanius are a particularly valuable source for the student of the history of theology.

Herodotus

Herodotus was a Greek historian, known as the “father of history.” He was born around 484 BC in Halicarnassus which is known as Bodrum in modern Turkey. It is believed that Herodotus was exiled from his home city sometime around 457 BC for conspiring against Persian rule. Once he was expelled he started his travels, writing about each of the countries that he passed through. He traveled extensively in Asia Minor, Babylonia, Egypt, Greece, and the Middle East.

Sometime around 447 BC Herodotus traveled to Athens, which at the time was considered the cultural center of the Greek world. The men of Athens loved to learn

about other places, and enter into philosophical debate. As a result Herodotus won the admiration of the most distinguished men, including that of the great Athenian statesman Pericles.

In 443 BC Herodotus settled in Thurii, in southern Italy, and devoted the remainder of his life to the completion of his great work, entitled *History*. Students of his volume *History* later divided it into nine books. The earlier books deal with the customs, legends, history, and traditions of the peoples of the ancient world, including the Lydians, Scythians, Medes, Persians, Assyrians, and Egyptians. The last three books describe the armed conflicts between Greece and Persia in the early 5th century BC.

Herodotus presented the development of civilization as moving towards a great confrontation between Persia and Greece, which he regarded as the centers of Eastern and Western culture.

It is believed that Herodotus' information came partly from the work of predecessors, and partly from the observations that he had made during his own travels. Although he was sometimes inaccurate, he was generally careful to distinguish between plausible and implausible reports. Herodotus died in 425 BC.

Jerome

Jerome was born in 342 as Eusebius Jieronimus Sophronius, but was later known simply as Jerome. He was a gifted and diligent scholar, a master of languages and a lover of books. He was a contemporary of Augustine of Hippo (352 - 420 AD) and John Chrysostom (345 - 407 AD). Jerome was educated in Rome and in his mid-twenties was baptized as a believer. During the following years he was attracted to the ascetic lifestyle, but moved from place to place. For two years, he was secretary to Pope Damasus until the Pope's death. under the Pope’s encouragement he started work on a Latin translation of the Scriptures, which would one day become the Vulgate translation of the Bible.

After the death of Damasus, Jerome left Rome, and settled near Bethlehem, building a monastery for study and translation. From this point he not only worked on his translation, but also directed young men in outreach ministries. One of the men studying under him was Hilarion, who would later become St. Hilarion. In one of his writings, Jerome describes the role of Hilarion as the Nabataeans at Elusa in the Negev converted to Christianity. Jerome is often known as Saint Jerome today.

Josephus Flavius

Flavius Josephus was a Jewish historian, born in 37 AD in Jerusalem of both royal and priestly lineage. His original name was Joseph Ben Matthias. A man both learned and worldly, he was a member of the Pharisees, and also a public figure who, before the Jewish revolt against Rome (66 AD), had made friends at the court of Emperor Nero.

The parts played in the revolt by the Zealots, and their opponents the Pharisees, who considered it futile, led to ambiguity in the historical record of the role of Josephus, a Pharisee, in the conflict. His own writings present two conflicting accounts of his mission in the province of Galilee (in what is now Israel). According to one account, he took command of the Jewish forces there to lead the Galilean phase of the revolt, but the other, later, account contends that he sought to subdue the revolt rather than lead it. Whichever story may be true, he apparently prepared Galilee for the coming onslaught and in 67 AD courageously repulsed the advance of Vespasian, the Roman general who was soon to

become emperor, defending the fortress of Jotapata for 47 days before surrendering. Josephus would have been sent as a prisoner to Nero had he not had the wit to prophesy that his captor, Vespasian, would himself one day be emperor. This prophecy accorded with Vespasian's ambitions, and the general kept Josephus with him, thus probably saving his life. While Vespasian's prisoner, Josephus saw the subjugation of Galilee and Judea. Subsequently freed, he adopted Vespasian's family name, Flavius. Accompanying another future emperor, Vespasian's son Titus, he witnessed Titus's siege of Jerusalem in 70 AD. Thereafter, enjoying imperial patronage under Titus and his brother's successor, Domitian, Josephus lived in Rome until his death in 101 AD where he devoted himself to his writing.

His works include: *The Jewish Wars* (in 7 books), which he wrote to dissuade his people and other nations from courting annihilation by further revolt against an all-powerful Rome; *Jewish Antiquities* (in 20 books), a history of the Jews from creation to 66 AD that eloquently demonstrates how his people had flourished under the law of God, *Life,* an autobiography; and A*gainst Apion*, a refutation of charges against the Jews made by the anti-Semitic Greek grammarian Apion (flourished 1st century) and other like-minded writers. The latter work is invaluable, because Josephus recapitulates writings on Jewish history that are no longer in existence.

Lucian of Syria (120-185 AD)

Lucian was a satirist and brilliant entertainer, who spared neither gods nor humans in his writings.

Lucian took up writing critical and satirical essays on the intellectual life of his time, either in the form of Platonic dialogues or, in imitation of Menippus, in a mixture of prose and verse. Lucian's writings apparently sustained the reputation he had won as a public speaker. Thanks to the patronage of his Roman friends, he obtained a lucrative post in Alexandria as *archistator*, a kind of chief court usher. After some years, he returned to Athens. There are 80 prose works traditionally attributed to Lucian.

Lucian was particularly critical of those whom he considered impostors. He regarded the worst charlatans of all to be those philosophers who failed to practice what they preached. He also complained about the absurd beliefs concerning the Olympian gods.

Lucian's best work in the field of literary criticism was his treatise *How to Write History*. In this work, he stressed using impartiality, detachment, and rigorous devotion to truth.

Lucian's writings give us an important window into the thoughts and attitudes of the Mediterranean world in the first century.

Pausanias (143-176 AD)

Pausanias was born in Lydia. He was a Greek traveler and geographer whose *Periegesis Hellados* (Description of Greece) is an invaluable guide to ancient ruins.

Before visiting Greece, Pausanias had traveled widely in Asia Minor, Syria, Palestine, Egypt, Macedonia, Epirus (now in Greece and Albania), and parts of Italy. His *Description* takes the form of a tour of Greece starting from Attica. It is divided into 10 books; the first book seems to have been completed after 143, but before 161. No event after 176 is mentioned in the work.

His account of each important city begins with a sketch of its history; his descriptive

narration follows a topographical order. He gives a few glimpses into the daily life, ceremonial rites, and superstitious customs of the inhabitants and frequently introduces legend and folklore.

Works of art are his major concern: inspired by the ancient glories of Greece, Pausanias is most at home in describing the religious art and architecture of Olympia and Delphi. At Athens he is intrigued by pictures, portraits, and inscriptions recording the laws of Solon; on the Acropolis, the great gold and ivory statue of Athena; and, outside the city, the monuments of famous men of the Athenians fallen in battle. The accuracy of his descriptions has been proved by the remains of buildings in all parts of Greece.

The topographical part of his work shows his fondness for the wonders of nature: the signs that herald the approach of an earthquake; the tides; the icebound seas of the north; and the noonday sun, which at the summer solstice casts no shadow at Syene (Aswan), Egypt. The famed anthropologist and classical scholar Sir James Frazer said of Pausanias: "without him the ruins of Greece would for the most part be a labyrinth without a clue, a riddle without an answer."

Philo Judaeus (approx. 15 BC - 50 AD)

Philo Judaeus was a Greek-speaking Jewish philosopher and the most important representative of Hellenistic Judaism. His writings provide the clearest view of this development of Judaism in the Diaspora. He probably lived in Alexandria.

Philo's works may be classified into four groups. 1. Scriptural essays and homilies based on specific verses or topics of the Pentateuch (the first five books of the Bible), especially Genesis. 2. General philosophical and religious essays. 3. Essays on contemporary subjects. 4. A number of works ascribed to Philo are almost certainly not his. The most important of these is *Biblical Antiquities*, an imaginative reconstruction of Jewish history from Adam to the death of Saul, the first king of Israel.

Pliny the Elder (23 AD -79 AD)

Pliny was a Roman writer and encyclopedist, who was the foremost authority on science in ancient Europe. He was born as Gaius Plinius Secundus in Novum Comum, which is now called Como in modern Italy. At an early age he and his family moved to Rome.

When Pliny was 23 years old, he entered the army, serving in a campaign in Germania. Returning to Rome in 52 AD, he studied legal jurisprudence, but, being unsuccessful as an advocate, he devoted himself to study and writing.

From about 70 to 72 he served in Spain as procurator, or collector of imperial revenues. In 79, when the great eruption of Vesuvius overwhelmed and destroyed Herculaneum and Pompeii, he was stationed at Misenum, near Naples, in command of the western Roman fleet. Eager to examine the volcanic phenomenon more closely, he sailed across the bay of Naples to Stabiae, where he died from suffocation due to a volcanic eruption.

Pliny wrote many historical and scientific works, including *De Laculatione Equestri,* a treatise on the use of the javelin by cavalrymen; *Studiosus*, 3 books on the training of a young orator, written apparently for the guidance of his nephew Pliny the Younger; *Dubius Sermo*, an 8-book treatise on declensions and conjugations; a 20-book history of the Germanic Wars; and, more importantly to us, 31 books of Roman history covering 41

AD to 71 AD.

Pliny's great encyclopedia of nature and art in 37 books, the *Historia Naturalis*, is the only one of his works that has been preserved. It embraces, as he states in his dedicatory epistle to the Roman emperor Titus, 20,000 important facts, extracted from about 2,000 volumes by 100 authors. The first ten books were published in 77 AD and the remainder after his death, probably by Pliny the Younger. The encyclopedia covers astronomy, geography, ethnology, anthropology, human physiology, zoology, botany, horticulture, medicine and medicaments from plant and animal substances, mineralogy, metallurgy, the fine arts, and also contains a valuable digression on the history of art. The encyclopedia is valuable for the enormous amount of information it provides on the art, science, and civilization of Pliny's time and for its anecdotes on the facets of daily life in Rome.

Pliny the Younger (62 AD -113 AD)

Pliny the Younger was a Roman official, whose letters give us a valuable description of life in the 1st century AD. Pliny the Younger's full Latin name was Gaius Plinius Caecilius. He was a nephew of and later adopted by Pliny the Elder. In 79 AD he took the Pliny name.Pliny the Younger was born in Novum Comum, and studied in Rome under the famous teacher and rhetorician, Quintilian. Pliny was distinguished both for his literary accomplishments and for his oratorical ability. He held numerous official appointments.

As a young man, he served as military tribune in Syria, where he frequented the schools of the Stoics. He was a *Quaestor Caesaris* at the age of 25 AD. He became praetor and then consul in 100 AD. In that same year, he wrote the Panegyricus, a eulogy of the Emperor Trajan.

Around 111 AD Pliny was appointed governor of the province of Bithynia, where he remained for two years. He was married three times, but died childless.

Pliny collected and published nine books of *Epistulae* (letters), and a tenth book, containing his official correspondence as governor of Bithynia with the Emperor Trajan, was published after his death. To these letters, Pliny owes his place in literature as one of the masters of the epistolary style. The private letters, most of which were undoubtedly written or revised with a view to publication, give a valuable picture of the life of the writer and of his friends and contemporaries. Pliny himself appears in the letters as a genial philanthropist, devoted to literary pursuits and to improving his estates by architectural adornment. The most interesting letters include two to his friend, the historian Publius Cornelius Tacitus, on the eruption of Vesuvius; one letter describing in detail his villa at Laurentum,and the other letter relating the story of a haunted house in Athens. Another letter to the Roman Emperor Trajan concerns government policy against the Christians.

Polybius (200 BC - 120 BC)

Polybius was a Greek historian, born in Megalopolis. He was one of the thousand noble Achaeans who, after the conquest of Macedonia in 168 BC, were sent to Rome as hostages. At Rome, Polybius was received into the home of the Roman general Lucius Aemilius Paulus and became the tutor of his two sons, the younger of whom was adopted into the Scipio family, becoming known as Scipio Africanus the Younger. Scipio and

Polybius became close friends.

In 151 BC, after 16 years in Italy, the surviving Achaean exiles were permitted to return to Greece by the Roman Senate. Polybius, however, soon rejoined Scipio, followed him in his African campaign, and was present at the sack of Carthage in 146 BC which marked the end of the Punic Wars. At the outbreak of the war between the Achaeans and the Romans, Polybius returned to Greece, where he was able to use his influence with the Romans to obtain favorable terms for the vanquished.

The latter part of Polybius' life was devoted to the composition of his great work, *Universal History* in 40 books. His aim was to show how and why the civilized countries of the world fell under the dominion of Rome. The work covers the period between 264 and 146 BC, the year that Corinth fell. Only the first five books have survived, but the plan of the whole work is known.

As a historian, Polybius tried not merely to list facts and events but to discover the underlying causes behind them and to draw lessons for the future. His tone is frequently didactic, and the continuity of his narrative is often interrupted by digressions. His style is simple and clear. In the history of Greek literature his work is significant because it is written in the so-called common dialect, a modified Attic, which came into use about 300 BC.

Ptolemy

Virtually nothing is known about Ptolemy's life. He wrote many of his books between 127-145 AD in Alexandria. He was an astronomer, geographer, and mathematician who considered the Earth the center of the universe (the "Ptolemaic system").One of his works, known as *The Almagest*, is divided into 13 books, each of which deals with certain astronomical concepts pertaining to stars and to objects in the solar system. In essence, it is a compilation of Greek astronomy, and the major source of knowledge about the work of Hipparchus, most probably the greatest astronomer of antiquity. In one book, Ptolemy compiled a star catalog of 1,022 stars.

Ptolemy also wrote books about mathematics and geography. It is his work as a geographer that is of interest to the student of history.

As a geographer, Ptolemy's reputation rests mainly on his *Geographike hyphegesis* (Guide to Geography), which was divided into eight books; it included information on how to construct maps and lists of places in Europe, Africa, and Asia tabulated according to latitude and longitude. There were, however, many errors in the Guide. For example, the Equator was placed too far north, and the value used for the circumference of the Earth was nearly 30 percent less than a more accurate value that had already been determined before, as well as some contradictions between the text and maps.

The Guide is an important work from a historical point of view because, like the Almagest, it exerted a great influence on later generations. Christopher Columbus, for example, used it to strengthen his belief that Asia could be reached by traveling westward because Ptolemy had indicated that Asia extended much farther east than it actually does. Even as late as 1775, it was believed that the Indian Ocean was conected tova southern continent, as Ptolemy had suggested. It wasn't until the return voyage from the Southern Hemisphere by Capt. James Cook that this was proved otherwise.

Strabo (63 BC - AD 24)

Strabo was a Greek geographer and historian, born in Amasya, Pontus, which is now in modern Turkey. He traveled extensively in Egypt, as part of an expedition up the Nile led by Aelius Gallus, Roman prefect of Egypt. Later Strabo spent many years in Rome until his death. During his life, Strabo traveled a great deal. His journeys took him from Armenia in the east to Sardinia in the west and from the Black Sea in the north to the borders of Ethiopia in the south.

Only a few fragments of his great historical work, which comprised 43 books, have survived. His volumes were a supplement to the history of the Greeks by the historian Polybius. His book, entitled *Geography* is a detailed description of the world as it was known to the ancients. All 17 books of the Geography series are almost entirely preserved until this day. They are particularly valuable as hey contain a record of his own personal observations.

Other Ancient Documents

Cookbooks

Ancient cookbooks are useful in discovering when certain spices and herbs arrived in the kitchens of Europe. While it is not an exact science, these ancient cookbooks certainly alert us to the availability of Indian and Chinese spices. This is helpful information in discovering when Arab and Nabataean merchants actually began and conducted trade with India and China.

Cookbooks have been written in almost every literate society. One of the most famous of the early ones is the *Deipnosophistai* ("The Learned Banquet"), a treatise on food and food preparation written in the 2nd century BC by Athenaeus, a Greek gourmet. The treatise is presented in the form of a dialogue between two people at a banquet, who talk for days and relate recipes for many different dishes. Athenaeus was by no means the earliest Greek writer on cooking; he mentions more than 20 authors who preceded him, one of whom, Archestratus, produced his masterpiece, *Hedypatheia (*"Pleasant Living"), in 350 BC.

Another famous gourmet of the ancient world was Apicius, a wealthy Roman merchant during the reign of Tiberius (14-37 AD). Apicius' colossal banquets eventually drove him to bankruptcy and suicide, but he left behind a cookbook so prized that it has been preserved, in numerous editions, down to the 20th century.

Another famous cookbook was the Roman cookbook called *Marcus Gavius Apicius: De Re Coquinaria*. A modern translation has been edited and translated from the Latin by Robert Maier.

The Archives of Zenon

These archives are a collection of 2000 papyri dating from 259 BC. They were in the possession of a man named Zenon, who was the business agent for Apollonius, the financial minister of Ptolemy II, Philadelphos. These manuscripts are mostly receipts and memos, but they give us an interesting glimpse into the everyday life of people during this period of time. Some of the documents mention Nabataeans as selling frankincense and myrrh as well as dealing in prostitutes.

The Cosmas

This book is a maritime manual of sixth century AD Byzantine trade with India.

The Periplus Maris Erythraei

The title of this book means *Circumnavigation of the Erythrean* (i.e. the Red Sea). This is a seafaring manual which was probably written in the second half of the 1st century A.D. by a man with a Greek name, living in Alexandria. This manual is very important as it shows us to what extent the shipping lanes had gained in importance at the expense of the overland caravan routes.

The Periplus describes in some detail the shore of what was to become northern Somalia. Ships sailed from there to western India to bring back cotton cloth, grain, oil, sugar, and ghee, while others moved down the Red Sea to the East African coast bringing cloaks, tunics, copper, and tin. Incense and aromatic gums, tortoiseshell, ivory, and slaves were traded in return.

The book also lists a series of ports along the Indian coast, including Muziris (Cranganore), Colchi (Korkai), Poduca, and Sopatma. An excavation at Arikamedu (near Pondicherry) revealed a Roman trading settlement of this period, and elsewhere, too, the presence of Roman pottery, beads, intaglios, lamps, glass, and coins point to a continuous occupation, resulting even in imitations of some Roman items. It would seem that textiles were prepared to Roman specification and exported from such settlements. Graffiti on pottery found at a port in the Red Sea indicates the presence of Indian traders.

The maritime trade routes from the Indian ports were primarily to the Persian Gulf and the Red Sea, from where they went overland to the eastern Mediterranean and to Egypt. Indian merchants also ventured out to Southeast Asia seeking spices and semiprecious stones. As a result, Hinduism took a hold in Indonesia during the 1st century AD. Chinese ships, on the other hand, sailed as far as Ceylon, where they exchanged goods with Arab traders.

The Periplus Maris Erythraei also addresses the kingdoms of southern Arabia mentioning an individual who was “king of two nations, the Homerites and the Sabaeans.”

The Petra Scrolls

These scrolls consist of 152 rolls of burnt papyri found in the old Byzantine church in Petra. At first archeologists were very pessimistic about the Petra Scrolls. They were deep black, fragile, and embedded in burnt debris. Some of them were single rolls, while others were baked together in flat cakes. Since the papyri were rolled with the writing on the inside, the archeologists could see a few pieces of papyri with the ink still intact. From this writing, they could date the Petra Scrolls to the sixth century.

Fortunately, a protective crust had formed when the outer windings of the rolls were baked together with the surrounding debris, preserving their shape even when they were broken into fragments. After the fire, they were buried under tons of stone, debris, and sand until their discovery.

Of the rolls excavated by the American Center of Oriental Research, 23 yielded partially continuous text segments and another 19 provided fragments with substantial information. The archive contains documents from 528 AD until the reign of Tiberius Mauricius (582-602 AD.)

Two teams, one from Finland, and one from the United States worked on the scrolls.

The burnt papyri demonstrated that Petra was not completely destroyed by an earthquake in 551 as previously thought. In contrast, the papyri and subsequent archaeological evidence create a picture of Petra as a viable city throughout the sixth and into the seventh century.

Most of the papyrus rolls deal with important property matters: sales, testamentary bequests, dowries, or divisions of property. The various transactions concern vineyards, sown land, orchards, apartments, and stables. As a result the scrolls open a window for us into the world of well-to-do landowners, church officials, soldiers and other officers.

Of particular interest are two donations after death. A dying man assembled his friends and named two curators for his estate. They were ordered to take care of the lifetime needs of his mother; after her death, the remainder was to be donated to the "house of Aaron" and a church-run hospice or hospital. The "house of Aaron" might be related to a Byzantine monastery on top of Mount Haroun, the towering mountain overlooking Petra.

The papyri also have much to say about agriculture and architecture in Petra. The scrolls confirm that wine, wheat, and fruits from orchards were the characteristic products of ancient desert agriculture. In general, land around Petra was measured in Roman iugera.

From tax records, it appears that in many cases Hebrew fluid measures were used to determine the size of fields. They measured a field by the amount of seed needed to sow it. This makes sense when local conditions did not allow farmers to sow the entire area regularly. This easily occurs in desert agriculture when the amount of rain or other water changes from one year to the next or when rocks and migrating stones and sand render part of the area infertile.

In terms of architecture, the text describes Petra as a city of irregular structures with additions wherever there was space, often on the roof. All houses had an internal yard around which the rooms, apartments, and stables were arranged. Other common features were a portico, a watchtower, staircases, inside yards and balconies. Cisterns and orchards also were mentioned.

In one instance, a dung heap stood next to a bedroom. The density of the habitation must have made living difficult. Therefore, it was essential to define the rights of persons in every detail. Much of the legal phraseology is standardized, as in modern contracts; and most of it is well known from Egyptian legal documents as well as the Nabataean papyri from the Cave of Letters. These have just been published and are now shedding more light on Nabataean culture as well as expanding known Nabataean vocabulary.

Appendix C

Internet Site

There are a great number of Internet sites that provide information about the Nabataeans and the city of Petra. Some of these sites are academic, some are touristic in nature, and some are records of an individuals visit. As with all Internet sites, some disappear and new ones start up.

Over the years, the web site "Nabataea.net" has consistently provided excellent coverage of the Nabataean people. This site also contains many of Dan Gibson's papers, from which this book has been drawn. This site can be found at: http://nabataea.net

Nabataea maintains a link page with links to many other sites that have information on the Nabataeans. Nabataea also hosts a children's section, many previously unpublished research papers, and a good number of pages with pictures and comments for those wishing to see various Nabataean sites. There is also a discussion board for those wishing to ask questions or discuss various aspects of Nabataean history and culture.

Appendix D

Selected Bibliography

Abu-Lughod, Lila. *Veiled Sentiments; Honor and Poetry in a Bedouin Society,* University of California Press, Los Angeles, USA, 1986

Al-Abduljabbar, Abdullah Abdulrahman, *The Rise of the Nabataeans Sociopolitical Developments in 4th and 3rd Century BC Nabataea*, Indiana University Press, Indiana, 1995

Al-Theeb, S., *Aramaic and Nabataean Inscriptions from North-West Saudi Arabia,* Riyadh, 1993

Ammianus Marcellinus, *The Roman History of Ammianus Marcellinus During the Reigns of The Emperors Constantius, Julian, Jovianus, Valentinian, and Valens*, trans. C. D. Yonge, London: G. Bell & Sons, 1911

Anchor Bible Dictionary. Doubleday. New York. 1992

Bar-Kochva, B., *The Seleucid Army,* Cambridge, 1976

Begley, Vimla, and De Puma, Richard Daniel, *Rome and India: the Ancient Sea Trade,* University of Wisconsin Press, 1991

Bibby, G., *Arabiens Arkaeologi, Dansk Arkaeologisk Ekspeditions 8 Kampagne, 1961/62* in Kuml, 1964

Borchardt, L, *Das Grabdenkmal des Konigs S'ashu-re,* WVDOG 26, Leipzig, 1913

Bowen, R. Le Baron, *Primitive Watercraft in Arabia*, American Neptune 12, 1952

Bowersock, G.W. *Roman Arabia*, Cambridge, Harvard UP, 1994

Bowersock,G. W. A *Report on Provincia Arabia*, Journal of Roman Studies 62, 1971

Bowes, Alan R. *The Process of Nabataean Sedentarization, New Models and Approaches,* The University of Utah, 1998

Bowsher, J.M.C. *Architecture and Religion in the Secapolis: A Numismatic Survey*, Palestine Exploration Quarterly 119, 1987

Britannica CD. Version 97, various articles, Encyclopaedia Britannica, Inc., 1997

Browning, Iain, *Petra*, Chatto & Windus Ltd, London, 1994

Carrington, P., *The Early Christian Church*, 2 vols., Cambridge University Press, London, 1957

Casson, L., *Egypt, Africa, Arabia and India: Patterns of Seaborne Trade in the First Century AD,* BASP 21 1-4, 39-47 1984

Casson, Lionel, *Ships and Seamanship in the Ancient World*, University Press, Princeton, 1971

Casson, Lionel, *Ships and Seafaring in Ancient Times*, University of Texas Press, 1994

Casson, Lionel (translator) *The Periplus Maris Erythraei* 1989 Princeton: Princeton University Press

Casson, Lionel, *The Ancient Mariners: Seafarers and Sea Fighters of the Mediterranean in Ancient Times.* (Second Edition), 1991

Clapp, Nicholas, *The Road to Ubar*, Houghton Mifflin, 1998

Crone, Patricia, *Meccan Trade and the Rise of Islam,* Princeton University Press, 1987

Dayton, John E. 1993 *The Discovery of Glass* American School of Prehistoric Research Bulletin 41, Peabody Museum of Archaeology and Ethnology, Harvard

De Graeve, Marie-Christine, *The Ships of the Ancient Near East*, Department Orientalistiek, Leuven, Belgium, 1981

Dijkstra, K., *Life and Loyalty. A Study in the Socio-Religious Culture of Syria and Mesopotamia in the Graeco-Roman Period Based on Epigraphical Evidence*. Leiden: E. J. Brill 1995, pp. 39,

Dio Cassius, *The Roman History, Vol. V*, trans. Ernest Cary (Cambridge, Mass.: Harvard University Press, 1917), pp. 269, 271

Diodorus of Sicily. *The Library of History*. trans. C. H. Oldfather. The Loeb Classical Library 2, Cambridge, Harvard, 1935

Doniach, N. S. editor, *The Oxford English-Arabic Dictionary of Current Usage*, Oxford University Press, UK, 1984

Donnan, Graeme, *The King's Highway*, Al Kutba Publishers, Amman Jordan 1994

Dudley, Donald R. *The Civilization of Rome*, Mentor Books, New American Library, New York, 1962

Eichholtz D. E. *Pliny Natural History, Volume X* Loeb Classical Library, Cambridge MA, Harvard University Press Encyclopedia of Islam, 1962 various articles

Faulkner, R.O., *Egyptian Seagoing Ships*, in JEA 26, 1940

Flavius Josephus, , *The Complete Works of Josephus*. Trans. Wm. Whiston, Grand Rapids: Kregel, 1981

Francis, Peter Jr. 1998 "*Glass and Glass Analysis*" Margaretologist 11(1):3-8

Francis, Jr., Peter, *Middle Eastern Glass Beads: A New Paradigm* 1999

Freedman, David Noel, *Ishmaelites*, Vol. 3, Ernst Axel Knauf Freeman, P.W.M. and Kennedy, D.L., eds. Byzantine East, BAR S297, Oxford, 1986, 59-75

Gabrielsen, Vincent, *The Naval Aristocracy of Hellenistic Rhodes*, David Brown Bk. Co., 1997

Glueck, Nelson, *The Other Side of Jordan*, New Haven, USA, 1940

Glueck, Nelson, *Deities and Dolphins: The Story of the Nabataean*s Farrar, Straus & Giroux, New York, 1965

Graf, David F. *Rome and the Arabian Frontier: from the Nabataeans to the Saracens,*

Variorum Collected Studies Series: CS594, Ashgate Publishing Ltd., Aldershot UK. 1997

Graf, David F. *The Nabataeans and the Hisma:* In the Steps of Glueck and Beyond,

*The World of the Lord shall Go Fort*h: Essays in Honor of David Noel Freedman eds C. L. Meyers and M. O'Connor 1983 pgs 647 - 664

Gibb, H. A. R., and Kramers, J. H. *The Shorter Encyclopaedia of Islam*, E. J. Brill, Leiden, Netherlands, 1953

Gibbon, Edward, *Decline and Fall of the Roman Empire,* Penguin Books, NY, 1985

Gibson, Dan, *The Nabataean Collection*, A collection of unpublished papers on the Nabataeans, some of which are available at http://Nabataea.net

Gilmore, David, *Honor and Shame and the Unity of the Mediterranean*. Special Publication no. 22 American Anthropological Association, Washington D.C. 1987

Greenhill, Basil, with John Morrision, *The Archaeology of Boats and Ships*. Naval Institute Press, 1996

Hale, William Harlan, *The Horizon Cookbook and Illustrated History of Eating and Drinking through the Ages*, American Heritage Publishing Co., Inc., and Doubleday, 1968

Hamady, Sania, *Temperament and Character of the Arabs*, Twayne Publishers, New York, 1960

Hammond, N.G.L., '*The Macedonian Navies of Philip and Alexander until 330 B.C.*', Antichthon 26, 1992, pgs. 30-41

Hammond, P.C., *The Nabateans: Their History, Culture and Archeology*, Gothenburge, 1973

Harden, D.B. 1959 "*Glass-Making Centres and the Spread of Glass-Making from the First to the Fourth Century A.D.*" Annals du 1er Congres International d'Etude Historiques du Verre

Harden D.B. 1967 "*Some Aspects of Pre-Roman Mosaic Glass"* Annals 4, Congres Journees International du Verre, pp. 29-38

Harden D.B. 1969 "*Ancient Glass I: Pre-Roman*" Archaeological Journal 125

Harding, G. Lankester, *The Antiquities of Jordan,* London, 1967

Hawkins, Clifford W., *The Dhow, an Illustrated History of the Dhow and its World*, Lymington 1977

Hitti, Philip, *History of the Arabs, from the Earliest Times to the Present,* London: MacMillan Education Ltd, 1970

Healey, J. F. *The Nabataean Tomb Inscriptions of Mada'in Salih*, Oxford 1993

Healey, J. F. *The Religion of the Nabataeans, A Conspectus*, Brill, Leiden, 2001

Herodotus, *The Histories of Herodotus*, New York: Harper & Brothers, 1898

Hodgkin, E.C. *The Arabs,* Oxford University Press, UK, 1970

Hofner, Maria., *Altsuedarabische Grammatik*. Leipzig 1943, p. 100

Holladay, A.J., '*Further Thoughts on Trireme Tactics*', Greece and Rome 35, 1988, 149-51

Homes-Fredericq, D., and H. J. Franken, eds, *Pottery and Potters, Past and Present, 7000 Years of Ceramic Art in Jordan,* ATTEMPTO Verlag Tubingen, GmbH, 1986

Hooke, S. H. *Babylonian and Assyrian Religion*, London, 1962

Hornell, J., *The Role of Birds in Early Navigation*, in Antiquity 20, 1946

Hourani, Albert, *History of the Arabs*, Harvard University Press, Cambridge, 1991

Hourani, G. F., *Arab Seafaring*, Beirut, 1963

Hyland, Ann, Equus: *The Horse in the Roman World*, Yale University Press, New Haven and London, 1990

Infopedia 2.0, Funk & Wagnalls N*ew Encyclopedia,* various articles, SoftKey, 1996

Isaac, B., *The Limits of Empire*, Oxford, 1990

Jones, Horace L. translator, *The Geography of Strabo*, Volume VII 1941 Loeb Classical Library, London, Cambridge, Harvard University Press

Joukowsky, Martha Sharp, *Petra Great Temple, Volume One*, Petra Exploration Fund, Brown University, Providence, RI USA

Kallet-Marx, L., *Money, Expense and Naval Power in Thucydides' History* 1-5.24, Berkeley, 1993

Kennedy, D., and Freeman P. *Southern Hauran Survey,* Levant 27, 1995 93-73

Kennedy, A., Petra, Its History and Monuments London, 1925

Knauf, E. *A Nabataean Origins*. Pp.56-61 in *Arabian Studies in Honour of Mahmoud Ghul*, (ed. M. M. Ibrahim), Wiesbaden: Harrassowitz, 1989

Lahiri, Nayanjot, *The Archaeology of Indian Trade Routes up to 200 BC*, Resource use, Resource Access and Lines of Communication, Oxford University Press, Oxford, New York, 1992

Lazenby, J.F., *The Diekplous,* Greece and Rome 34, 1987

Lewis, Bernard, *The Arabs in History*, Hutchinson University Library, 1970

Levy, Udi, *The Lost Civilization of Petra*, Florus Books, Glasgow, 1999

Libbey and Hoskins, Drs., *The Jordan Valley and Petra*, London:1905

Liebeschuetz, J.H.W.G., *Generals, Federates and Buccelarii in Roman Armies around AD 400, The Defence of the Roman and Byzantine East*, BAR S297, eds. P.W.

Freeman and D.L. Kennedy, (Oxford, 1986)

Lindner, M. *Petra und das Konigreich der Nabataer,* Nurnberg, Delp, 1970

Lyall, Charles *Ancient Arabian Poetry*, London, 1900

Lyttleton, M. Baroque *Architecture in Classical Antiquity* London, 1974

MacAdam, H. L. *Studies in the History of the Roman Province of Arabia: The Northern Sector* 1986

Maine, Henry Sumner, *Ancient Law,* Dorset Press, Great Britain, 1861, 1986

Maqsood, Rosalyn, *Petra: A Traveller's Guide*

Mattingly, H., *The Man in the Roman Street,* The Numismatic Review, New York, 1947

Mayerson, Philip, *Aelius Gallus at Cleopatris (Suez) and the Red Sea*, Greek, Roman, Byzantine Studies, Vol. 36 (Spring 1995) # 1

Maybury, Richard J. *Ancient Rome: How it affects you today,* Bluestock Press, Placerville, CA 1995

Mayeron, P., *The Desert of Southern Palestine according to Byzantine Sources.*,Proceedings of the American Philosophical Society, 1963

McKenzie, J. S., *The Architecture of Petra*, British Academy, Oxford University Press, 1990

Meijer, Fik, and van Nijf, Onno, *Trade, Transport and Society in the Ancient World. A Sourcebook*, Routledge, London and New York, 1992

Meirer, Fritz, Festschrift fuer Wilhem Eilers. Wiesdaden 1967, 341-367

Meshorer, Y., *Nabataean Coins,* Jerusalem, 1975

Microsoft(R) *Encarta(R) 99 Encyclopedia*., Microsoft Corporation, various articles, © 1993-1998

Middleton, P., *The Roman Army and Long Distance Trade, Trade and Famine in Classical Antiquity*, eds. Garnsey, P. and Whittaker, C.R., Cambridge, 1983

Millar, Fergas, T*he Roman Near East: 31 BC - AD 337*, Cambridge, Harvard UP, 1993

Morrison, J. and Coates, J., *The Athenian Trireme*, Cambridge, 1986

Morrison, J., *Tetereis in the fleets of Dionysius of Syracuse*, Classica et Medievalia 41, 1990, 33 -41

Morrison, J., *Greek and Roman Oared Warships, 399-30 BC*, Oxford, 1996

Muller, Roland, *Honor and Shame, Unlocking the Doo*r, Xlibris, Philadelphia 2001

Murray, M., *Petra, The Rock City of Edom,* London, 1939

Murray, O., (ed), *Sympotika*, Oxford, 1994

Musil, A., *Arabia Petraea, Vol: Edom,* Vienna 1887,1908

Negev, A. Archaeology 14, 1961, p. 122-36. *A preliminary account by the excavator*, taken from: M.I.Finley, The Atlas of Classical Archaeology, 1977, p.236

Negev, Avrahm, *Nabatean Archaeology Today*, New York: New York University Press, 1986

New Grolier Multimedia Encyclopedia, Release 6, Version 6.02, various articles, 1993

Nicholson, R.A. *A Literary History of the Arabs,* Cambridge University Press, revised

edition, 1929

Ormerod, Henry A., *Piracy in the Ancient World: An Essay in Mediterranean History*, Johns Hopkins University Press, 1996

Pliny the Elder, *Natural History*, ed. H. Rackham, London, 1942Procopius, *History of the Wars*, 7 vols., trans. H. B. Dewing, Cambridge, Mass., and London: Harvard University Press & Wm. Heinemann, 1914; reprint ed., 1953-54), I.179-195. Scanned by: J. S. Arkenberg, Dept. of History, Cal. State Fullerton. Prof. Arkenberg has modernized the text and added the annotations.

Rao, S.R., *Shipping and Maritime Trade of the Indus people*, in Expedition 7, 3, 1964-1965

Redd, M., Mare Nostrum, *Paris, 1986*, reviewed by Le Bohec, Y., JRA 2 1989, pgs 326-31

Robinson, G. *The High Places of Petra*, BW XXXXI, B & D, I p 528

Rodgers, W.R., *Greek and Roman Naval Warfare*, Annapolis, 1937

Rostovtzeff, Michael, *Caravan Cities* London, 1932

Rostovtzeff, Michael, *Foreign Commerce of Ptolemaic Egypt*, Journal of Economic and Business History, 4(4):728-769

Sabloff, Jeremy A., and Llamberg-Karlovsky, CC, *Ancient Civilization and Trade*, University of New Mexico Press, Albuquerque, 1975

Sartre, M, *Inscriptions Grecques et Latines de la Syrie* IGLS, 1982

Schoff, Wilfred, H., *Parthian Stations by Isidore of Charax, An account of the Overland Trade Route between the Levant and India in the First Century B.C*. Ares Publishers Inc., Chicago, MCMLXXXIX

Shahid, I., *Rome and the Arabs*, Washington, 1984

Sidebotham, Steven E. 1991a *Ports of the Red Sea and the Arabia-India Trade*, pp. 12-38 in Vimala Begley and Richard Daniel De Puma, eds. *Rome and India: The Ancient Sea Trade* Madison: University of Wisconsin Press 1991

Sidebotham, Steven E. and Ronald E. Zitterkopf Routes Through the Eastern Desert of Egypt Expedition 37(2):39-52 1995

Sidebotham, Steven & Willemina Wendrich, *Berenike: Roman Egypt's maritime gateway to Arabia and India* Egyptian Archaeology No. 8, 1996

Simon & Schuster *New Millennium Encyclopedia and Home Reference Library* Deluxe 2000 Edition, Various articles, 1999

Speidel, M.P., '*The Rise of Ethnic Units in the Roman Imperial Army*', ANRW 2.7.2, 730-746

Sprenger, A. *The Campaign of Aelius Gallus in Arabia*, Journal of the Royal Asiatic Society of Great Britain and Ireland, Vol. VI, 1873 p. 121-122

Starcky, Abbé. "*Pétra et la Nabatène,*" *Supplément au Dictionnaire de la Bible*, Vol. VII,

1966.

Starr, C.G., *The Influence of Sea Power on Ancient History*, Westport, 1941Starr, C.G., The Roman Imperial Navy, Ithaca, NY, 1941, only covers period to 324 AD

Stewart, Frank, Henderson, *Honor*, University of Chicago Press, Chicago, USA, 1994

Strabo, *The Geography of Strabo: Literally Translated, with Notes*, trans. by H. C. Hamilton & W. Falconer, London: H. G. Bohn, 1854-1857

Tarn, W. *The Battle of Actium*, Journal of Roman Studies 1931

Thomas, Bertram, *Arabia Felix: Across the "Empty Quarter*" of Arabia, Scribner's, 1932

Trowbridge, Mary L. "*Philological Studies in Ancient Glass,*" University of Illinois Studies in *Language and Literature* 1928, 13(3/4): 231, 436 (see pp. 313-24; also published as a separate book, 1930 by U. Illinois

Wallinga, H.T., *The Trireme and History*, Mnemosyne 43 (1990), 132-49

Wendrich, Willemina and Steven Sidebotham *Port of Elephants and Pearls* Egypt Today, Dec., pp144-5

Wehr, Hans, *A Dictionary of Modern Written Arabic*, Edited by J. Jilton Cowan, Spoken Language Services, Ithaca N.Y. USA, 1976

Westernarck, E. A., *Pagan Survivals in Mohammedan Civilization*, Macmillan, London, 1933

Wheeler, Mortimer *Rome Beyond the Imperial Frontiers*, Ball and Sons: London, 1949

Whitehouse, D., *Maritime Trade in the Arabian Sea: The Ninth and Tenth Centuries*, South Asian Archeology, 1977

Whitehouse, D., Epilogue: Roman trade in perspective. In *Rome and India: The ancient sea trade*, V. Begley and R. D. De Puma (eds), 216-18. Wisconsin Studies in Classics. Madison, 1991

Zarins, Juris, *Dhofar: Land of Incense*, Sultan Qaboos University (Muscat, Sultanate of Oman), 1998